# Attachment B1

## Revised Traffic Impact Assessment

# Section 16 Planning Application in support of Proposed Minor Relaxation of Plot Ratio Restriction for Proposed Hotel use at Chai Wan Inland Lots 12 and 43, 14 - 16 Lee Chung Street, Chai Wan, Hong Kong

## Traffic Impact Assessment

**Final Report**
**November 2025**

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**Prepared for:** **Fortune Creation Developments Ltd.**

**Section 16 Planning Application in support of Proposed Minor Relaxation of Plot Ratio Restriction for Proposed Hotel use at Chai Wan Inland Lots 12 and 43, 14 - 16 Lee Chung Street, Chai Wan, Hong Kong**

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# 1.0 INTRODUCTION

## Background

1.1 The Subject Site is located at 14 – 16 Lee Chung Street in Chai Wan. It is currently occupied by a revitalised industrial building which is known as the Johnson Building. **Figure 1.1** shows the location of the Subject Site.

1.2 A Section 16 planning application for the minor relaxation of the plot ratio for 14,068 $m^2$ industrial use at the Subject Site was approved by the Town Planning Board (TPB ref: A/H20/195) on 4th December 2020. The Owner has the intention to redevelop the existing building into a 363-room hotel (the "Proposed Hotel").

1.3 Against this background, CKM Asia Limited, a traffic and transportation planning consultancy firm, was commissioned by the Owner to conduct a traffic impact assessment in support of the Proposed Hotel.

## Structure of Report

1.4 The report is structured as follows:

| | | |
|---|---|---|
| Chapter One | - | Gives the background of the project; |
| Chapter Two | - | Describes the existing situation; |
| Chapter Three | - | Presents the Proposed Hotel; |
| Chapter Four | - | Describes the traffic impact analysis; |
| Chapter Five | - | Describes the pedestrian impact analysis; and |
| Chapter Six | - | Gives the overall conclusion. |

# 2.0 EXISTING SITUATION

## The Subject Site

2.1 The Johnson Building fronts onto Lee Chung Street and it adjoins the Shell Industrial Building to the south. The run-in / out of the Johnson Building is provided at Lee Chung Street.

## Existing Traffic Flows

2.2 To quantify the existing traffic flows in the vicinity of the Subject Site, manual classified counts were conducted on Friday, 16 May 2025 during AM and PM peak periods at the following junctions:

J01 - Junction of Lee Chung Street / Chui Hang Street
J02 - Junction of Cheung Lee Street / Kut Shing Street (West Junction)
J03 - Junction of Cheung Lee Street / Kut Shing Street (East Junction)
J04 - Junction of Hong Man Street / Tai Man Street
J05 - Junction of Chai Wan Road / Hong Man Street
J06 - Junction of Chai Wan Road / Wan Tsui Road
J07 - Junction of Chai Wan Road Roundabout
J08 - Junction of Ning Foo Street / Lee Chung Street
J09 - Junction of Lee Chung Street outside Shun Yee Factory Building
J10 - Junction of Hong Man Street / Cheung Lee Street

2.3 The area of influence and surveyed junctions are shown in **Figure 2.1** and the junction layouts are found in **Figures 2.2 – 2.11**.

2.4 The traffic counts are classified by vehicle type to enable traffic flows in passenger car units ("pcu") to be calculated. The AM and PM peak hours identified from the surveys are found to be between 0800 – 0900 hours and 1730 – 1830 hours respectively. **Figure 2.12** presents the observed AM and PM peak hour traffic flows in pcu/hour.

## Performance of the Surveyed Junctions

2.5 The existing performance of the surveyed junctions is calculated based on the observed traffic counts, and the analyses were undertaken using the methods outlined in Volume 2 of the Transport Planning and Design Manual ("TPDM"), which is published by the Transport Department. The existing junction performance is presented in **Table 2.1**, and detailed calculations are found in **Appendix A**.

TABLE 2.1 EXISTING JUNCTION PERFORMANCE

| Ref. | Junction | Junction Type (Parameter) | AM Peak | PM Peak |
|---|---|---|---|---|
| J01 | Lee Chung Street / Chui Hang Street | Priority (DFC) | 0.078 | 0.083 |
| J02 | Cheung Lee Street / Kut Shing Street (West Junction) | Priority (DFC) | 0.132 | 0.102 |
| J03 | Cheung Lee Street / Kut Shing Street (East Junction) | Signal (RC) | 307% | 396% |
| J04 | Hong Man Street / Tai Man Street | Priority (DFC) | 0.509 | 0.243 |
| J05 | Chai Wan Road / Hong Man Street | Signal (RC) | 37% | 82% |
| J06 | Chai Wan Road / Wan Tsui Road | Priority (DFC) | 0.376 | 0.315 |
| J07 | Chai Wan Road Roundabout | RA (DFC) | 0.472 | 0.363 |

| Ref. | Junction | Junction Type (Parameter) | AM Peak | PM Peak |
|---|---|---|---|---|
| J08 | Ning Foo Street / Lee Chung Street | Signal (RC) | 251% | 305% |
| J09 | Lee Chung Street outside Shun Yee Factory Building | Priority (DFC) | 0.068 | 0.057 |
| J10 | Hong Man Street / Cheung Lee Street | Priority (DFC) | 0.536 | 0.415 |

Note: DFC – design flow/capacity ratio RC – Reserve Capacity RA – Roundabout

2.6 The results in **Table 2.1** show that the junctions analysed operate with capacity.

## Public Transport Facilities

2.7 The Subject Site is well-served by public transport facilities, and access to public transport services is convenient, including the Chai Wan MTR station exit C, which is located some 200m away. In addition, numerous franchised bus and public light bus routes operate within 500-metre from the Subject Site. **Figure 2.13** shows details of the road-based public transport services provided within 500-metre from the Subject Site.

## Existing Footpath Level-Of-Service

2.8 To quantify the existing pedestrian flows, pedestrian counts were conducted during the AM and PM peak periods on Friday, 16 May 2025 and Tuesday, 18th November 2025 at footpaths located in the vicinity, and the observed peak hour pedestrian flows are shown in **Figure 2.14**.

2.9 The Level-Of-Service ("LOS") of a pedestrian footpath depends on its width and number of pedestrians using the facility. Description of the LOS at walkway is obtained from Volume 6 of the TPDM and is presented in **Table 2.2**.

TABLE 2.2 DESCRIPTION OF PEDESTRIAN FOOTPATH LOS

| LOS | Flow Rate (ped/min/m) | Description |
|---|---|---|
| A | ≤ 16 | Pedestrians basically move in desired paths without altering their movements in response to other pedestrians. Walking speeds are freely selected, and conflicts between pedestrians are unlikely. |
| B | 16 – 23 | Sufficient space is provided for pedestrians to freely select their walking speeds, to bypass other pedestrians and to avoid crossing conflicts with others. At this level, pedestrians begin to be aware of other pedestrians and to respond to their presence in the selection of walking paths. |
| C | 23 – 33 | Sufficient space is available to select normal walking speeds and to bypass other pedestrians primarily in unidirectional stream. Where reverse direction or crossing movement exist, minor conflicts will occur, and speed and volume will be somewhat lower. |
| D | 33 – 49 | Freedom to select individual walking speeds and bypass other pedestrians is restricted. Where crossing or reverse-flow movements exist, the probability of conflicts is high and its avoidance requires changes of speeds and position. The LOS provides reasonable fluid flow; however considerable friction and interactions between pedestrians are likely to occur. |
| E | 49 – 75 | Virtually, all pedestrians would have their normal walking speeds restricted. At the lower range of this LOS, forward movement is possible only by shuffling. Space is insufficient to pass over slower pedestrians. Cross- and reverse-movement are possible only with extreme difficulties. Design volumes approach the limit of walking capacity with resulting stoppages and interruptions to flow. |
| F | > 75 | Walking speeds are severely restricted. Forward progress is made only by shuffling. There are frequent and unavoidable conflicts with other pedestrians. Cross- and reverse-movements are virtually impossible. Flow is sporadic and unstable. Space is more characteristics of queued pedestrians than of moving pedestrian streams. |

Source: Volume 6 Chapter 10 of TPDM

2.10 The observed peak 15 minutes pedestrian flows LOS assessment is presented in **Table 2.3**.

TABLE 2.3 EXISTING LOS ASSESSMENT

| **Location** | **Clear Width[(1)] [Effective Width] (m)** | **Peak Period** | **Flow (ped/ 15 mins)** | **Flow rate (ped/min/m)** | **LOS** |
|---|---|---|---|---|---|
| P1. Eastern Footpath Outside 14-16 Lee Chung Street | 2.5[1.5] | AM | 94 | 4.2 | A |
| | | PM | 187 | 8.4 | A |
| P2. Northern Footpath Outside 12 Lee Chung Street | 3.0[2.0] | AM | 382 | 12.8 | A |
| | | PM | 418 | 14.0 | A |
| P3. Footpath at Ning Foo Street Amenity Area | 4.5[3.5] | AM | 452 | 8.7 | A |
| | | PM | 444 | 8.5 | A |

(1) The width excludes railing and obstructions.

2.11 The above results indicate that the surveyed footpaths currently operate with LOS A during the AM and PM peak. As stated in the TPDM, LOS A to C is considered as an acceptable range of level of service. Hence, the footpaths analysed operate with capacity.

# 3.0 THE PROPOSED HOTEL

## The Proposed Hotel

3.1 The Owner of the Subject Site intends to redevelop the existing industrial building to a 363-room hotel.

## Provision of Internal Transport Facilities

3.2 The comparison of the proposed internal transport facilities and the recommendations of the Hong Kong Planning Standards and Guidelines ("HKPSG") are presented in **Table 3.1**.

TABLE 3.1 COMPARISON OF THE HKPSG RECOMMENDATIONS AND PROPOSED INTERNAL TRANSPORT FACILITIES

| **HKPSG Recommendations for a Hotel with 363 rooms** | **The Proposed Hotel** |
|---|---|
| **Car Parking Space** | |
| 1 per 100 rooms<br>**363** / 100 = 3.63, say **4 nos.** | **4 nos.** comprising of:<br>(i) 1 set of double-deck parking rack @ 5m(L) X 2.5m (W)<br>(ii) 1 no. @ 5m(L) X 2.5m (W) X 2.4m(H),<br>(iii) 1 no. @ 5m (L) X 3.5m (W) X 2.4m (H) for persons with disabilities<br>**= Comply with HKPSG, OK** |
| **Motorcycle Parking Space** | |
| 5% to 10% of car parking space<br>Minimum =4 x 5% = 0.2, say **1 no.**<br>Maximum = 4 x 10% = 0.4, say **1 no.** | **1 no.** 2.4m(L) X 1m (W) X 2.4m(H)<br>**= Complies with HKPSG, OK** |
| **Goods Vehicle Loading / Unloading Bay** | |
| 0.5 – 1 goods vehicle bay per 100 rooms<br>Minimum =0.5 x 363/100 = 1.82, say **2 nos.**<br>With 65% for LGV and 35% for HGV:<br>**LGV**: 2 x 0.65 = 1.3, say **1 no.**; &<br>**HGV**: 2 – 1 = **1 no.**<br>Maximum = 1 x 363/100 = 3.63, say **4 nos.**<br>With 65% for LGV and 35% for HGV:<br>**LGV**: 4 x 0.65 = 2.6, say **3 nos.**; &<br>**HGV**: 4 – 3 = **1 no.** | **2 nos.** including:<br>(i) 1 LGV @ 7m (L) X 3.5m (W) X 3.6m (H)<br>(ii) 1 HGV @ 11m (L) X 3.5m (W) X 4.7m (H)<br>**= Comply with HKPSG, OK** |
| **Taxi and Private Car Layby** | |
| Minimum 3 nos. for 300 - 599 rooms | **3 nos.** @ 5m (L) X 2.5m (W) X 2.4m (H)<br>**= Comply with HKPSG, OK** |
| **Single Deck Tour Bus Layby** | |
| Minimum 2 – 3 nos. for 300 - 899 rooms | **2 nos.** @ 12m (L) X 3.5m (W) X 3.8m (H)<br>**= Comply with HKPSG, OK** |

3.3 **Table 3.1** shows that the internal transport facilities provided comply with the recommendations of the HKPSG. The G/F layout plan is shown in **Figure 3.1**.

### Swept Path Analysis

3.4 The CAD-based swept path analysis programme, Autodesk Vehicle Tracking, was used to check the ease of manoeuvring of vehicles within the Proposed Hotel, and the swept path analysis drawings are found in **Appendix B**. Vehicles are found to have no manoeuvring problems.

# 4.0 TRAFFIC IMPACT

## Design Year

4.1 The Proposed Hotel is expected to be completed in 2030, and the design year adopted for the traffic assessment is, whichever later of the 2: (i) at least 3 years after the planned completion of the development, i.e., 2033, or (ii) 5 years from the date of this application, i.e., 2030. Therefore, Year 2033 is adopted for junction capacity analysis.

## Traffic Forecasting

4.2 Year 2033 peak hour traffic flows for the junction capacity analysis are produced (i) with reference to the 2019-based Base District Traffic Model HK2 (the "BDTM"); (ii) estimated growth from 2031 to 2033; (iii) expected traffic generation by the planned / committed developments in the vicinity; and (iv) expected traffic generation by the Proposed Hotel.

## Estimated Traffic Growth Rate from 2031 to 2033

4.3 Reference is made to the: (i) the Annual Average Daily Traffic ("AADT") of core stations located in the vicinity of the Proposed Hotel, which is found in the Annual Traffic Census, published by Transport Department, and (ii) the Hong Kong Population Projection published by Census and Statistics Department.

4.4 The information for (i) is presented in **Table 4.1**.

TABLE 4.1 AADT OF THE CORE STATIONS IN THE VICINITY OF THE PROPOSED HOTEL

| **ATC Station No.** | **1102** | **1220** | **1446** | **Overall** |
|---|---|---|---|---|
| **Road** | **Cheung Lee Street** | **Chai Wan Road** | **Island Eastern Corridor** | |
| **From** | Hong Man Street | Tai Tam Road | Wan Tsui Road | |
| **To** | Kut Shing Street | Wan Tsui Road | Wing Tai Road INT | |
| **Year** | **Annual Average Daily Traffic (vehicles / day)** | | | |
| 2017 | 4,320 | 18,470* | 17,730* | 40,520 |
| 2018 | 4,500 | 19,140 | 17,780* | 41,420 |
| 2019 | 4,320 | 18,490 | 19,630 | 42,440 |
| 2020 | 4,240 | 17,640* | 18,700 | 40,580 |
| 2021 | 4,430 | 18,440* | 19,070* | 41,940 |
| 2022 | 4,230 | 17,590* | 17,970* | 39,790 |
| 2023 | 4,330 | 18,590 | 18,360* | 41,280 |
| **Average Annual Growth (2017 - 2023)** | **0.04%** | **0.11%** | **0.58%** | **0.31%** |

Note: * Estimated by Growth Factor

4.5 **Table 4.1** shows overall annual average traffic growth of 0.31%.

4.6 The information for (ii) is presented in **Table 4.2**.

TABLE 4.2 HONG KONG POPULATION PROJECTIONS FROM CENSUS AND STATISTICS DEPARTMENT

| Year | Population in Hong Kong (thousands) |
|---|---|
| 2031 | 7,820.2 |
| 2033 | 7,903.6 |
| **Average Annual Growth (2031 – 2033)** | **0.53%** |

4.7 **Table 4.2** shows that the annual population growth between 2031 – 2033 is 0.53%. To be conservative, the annual growth rate of 1% is adopted for 2031 – 2033.

### Additional Planned / Committed Developments near the Subject Site

4.8 The planned / committed developments near the Subject Site not included in the BDTM but have been incorporated to produce the future year traffic flows are listed in **Table 4.3** and the locations are presented in **Figure 4.1**.

TABLE 4.3 ADDITIONAL PLANNED / COMMITTED DEVELOPMENTS NEAR THE SUBJECT SITE

| Ref. No. | Development | | GFA ($m^2$) | No. of Flat | Average Flat Size | No. of space |
|---|---|---|---|---|---|---|
| A | Industrial Building at 18 Lee Chung Street | | 9,000 | -- | -- | -- |
| B | Transitional Housing at 46 Sheung On Street | | -- | 103 | 30 $m^2$ | -- |
| C | Light Public Housing at 50 Sheung On Street | | -- | 1,720 | 30 $m^2$ | -- |
| D | Residential Development at 391 Chai Wan Road | | -- | 850 | 75 $m^2$ | -- |
| E | Public Housing Development at Cheung Man Road | | -- | 730 | 50 $m^2$ | -- |
| F | Chai Wan Government Complex and Vehicle Depot | | 33,930 | -- | -- | -- |
| G | Water Supplies Department Headquarters with Regional Office and Correctional Services Department Headquarters | | 37,000 | -- | -- | -- |
| H | Joint-user Complex at Junction of Shing Tai Road and Sheung Mau Street, Chai Wan | Office | 17,760 | -- | -- | -- |
| | | Public Vehicle Park | -- | -- | -- | 200 |
| | | Driving School | 5,000 | -- | -- | -- |

### Traffic Generation of the Proposed Hotel

4.9 To estimate the traffic generation of the Proposed Hotel, reference is made to the mean rates for Hotel uses in TPDM. The adopted trip rates and the estimated AM and PM peak hour traffic generation are presented in **Table 4.4**.

TABLE 4.4 ADOPTED TRIP RATES AND TRAFFIC GENERATION OF THE PROPOSED HOTEL

| **The Proposed Hotel** ***(363 Rooms)*** | **Parameter** | **AM Peak** | | **PM Peak** | |
|---|---|---|---|---|---|
| | | **Generation** | **Attraction** | **Generation** | **Attraction** |
| *Mean Traffic Generation Rates for Hotel Uses* | pcu/hr/ room | 0.1329 | 0.1457 | 0.1290 | 0.1546 |
| *Traffic Generation* | pcu/hr | *49* | *53* | *47* | *57* |
| | | ***102 (2-way)*** | | ***104 (2-way)*** | |

4.10 The Proposed Hotel is expected to generate 102 and 104 pcu / hour (2-way) in AM and PM peak respectively.

### Year 2033 Traffic Flows

4.11 Year 2033 traffic flows for the following cases are derived:

*Year 2033 Without the Proposed Hotel [A]* = *Traffic flows derived with reference to BDTM + estimated traffic growth between 2031 and 2033 + expected traffic generation of the planned / committed developments after 2019*

*Year 2033 With the Proposed Hotel [B]* = *[A] + Traffic Generation of the Proposed Hotel*

4.12 Year 2033 peak hour traffic flows for the above cases are shown in **Figures 4.2 – 4.3** respectively.

## Year 2033 Junction Capacity Analysis

4.13 Year 2033 junction capacity analysis for the three cases are summarised in **Table 4.5** and detailed calculations are found in the **Appendix A**.

TABLE 4.5 YEAR 2033 JUNCTION PERFORMANCE

| **Ref.** | **Junction** | **Junction Type (Parameter)** | **Without the Proposed Hotel** | | **With the Proposed Hotel** | |
|---|---|---|---|---|---|---|
| | | | **AM Peak** | **PM Peak** | **AM Peak** | **PM Peak** |
| J01 | Lee Chung Street / Chui Hang Street | Priority (DFC) | 0.114 | 0.101 | 0.220 | 0.180 |
| J02 | Cheung Lee Street / Kut Shing Street (West Junction) | Priority (DFC) | 0.148 | 0.116 | 0.150 | 0.118 |
| J03 | Cheung Lee Street / Kut Shing Street (East Junction) | Signal (RC) | 278% | 352% | 255% | 320% |
| J04 | Hong Man Street / Tai Man Street | Priority (DFC) | 0.607 | 0.287 | 0.609 | 0.288 |
| J05 | Chai Wan Road / Hong Man Street | Signal (RC) | 19% | 61% | 18% | 59% |
| J06 | Chai Wan Road / Wan Tsui Road | Priority (DFC) | 0.412 | 0.345 | 0.412 | 0.345 |
| J07 | Chai Wan Road Roundabout | RA (DFC) | 0.544 | 0.415 | 0.573 | 0.441 |
| J08 | Ning Foo Street / Lee Chung Street | Signal (RC) | 206% | 258% | 160% | 194% |
| J09 | Lee Chung Street outside Shun Yee Factory Building | Priority (DFC) | 0.079 | 0.063 | 0.080 | 0.064 |
| J10 | Hong Man Street / Cheung Lee Street | Priority (DFC) | 0.595 | 0.457 | 0.617 | 0.477 |

Note: DFC – design flow/capacity ratio RC – Reserve Capacity RA – Roundabout

4.14 **Table 4.5** shows that the junctions analysed have capacity to accommodate the expected traffic growth to 2033 and the traffic generated by the Proposed Hotel. In addition, the traffic generated by the Proposed Hotel has negligible impact to the surrounding road junctions.

## Gazetted Improvement at Junction of Chai Wan Road Roundabout

4.15 Improvement at the junction of Chai Wan Road Roundabout was gazetted on 4 August 2023 and will be implemented by Civil Engineering and Development Department ("CEDD") under "Site Formation and Infrastructure Works for Public Housing Development near Chai Wan Swimming Pool, Chai Wan" (CE 63/2022 (CE)). **Figure 4.4** shows the possible improvement, which includes the following:

- Widening of the approach arm of Chai Wan Road Eastbound.
- Widening of exiting arm of Island Eastern Corridor

- Additional exclusive left turn traffic lane from Chai Wan Road Eastbound to Island Eastern Corridor northbound

4.16 Based on this possible improvement, the performance of Chai Wan Road Roundabout is calculated and is presented in **Table 4.6** and detailed calculations are found in the **Appendix A**.

TABLE 4.6 YEAR 2033 JUNCTION PERFORMANCE OF THE IMPROVED CHAI WAN ROAD ROUNDABOUT

| **Ref** | **Junction** | | **Type of Junction (Parameter)** | **Without the Proposed Hotel** | | **With the Proposed Hotel** | |
|---|---|---|---|---|---|---|---|
| | | | | **AM Peak** | **PM Peak** | **AM Peak** | **PM Peak** |
| J7 | Chai Wan Road Roundabout | existing layout | RA (DFC) | 0.544 | 0.415 | 0.573 | 0.441 |
| | | with improvement | RA (DFC) | 0.443 | 0.392 | 0.450 | 0.414 |

Note: DFC – design flow/capacity ratio RA – Roundabout

4.17 **Table 4.6** shows that (1) the improved Chai Wan Road Roundabout would have sufficient capacity in Year 2033 for the cases without and with the Proposed Hotel; and (2) the additional traffic generated by the Proposed Hotel has negligible traffic impact.

# 5.0 PEDESTRIAN IMPACT

## Pedestrian Generation

5.1 The pedestrian generation of the Proposed Hotel and planned / committed developments in the vicinity, i.e., Industrial Building at 18 Lee Chung Street, are estimated with reference to in-house pedestrian generation rates and are presented in **Table 5.1**.

TABLE 5.1 PEDESTRIAN GENERATIONS OF THE PROPOSED HOTEL AND PLANNED / COMMITTED DEVELOPMENTS IN THE VICINITY

| Item | Pedestrian Generations | | | |
|---|---|---|---|---|
| | AM Peak | | PM Peak | |
| | **Generation** | **Attraction** | **Generation** | **Attraction** |
| *Pedestrian Generation Rate* | | | | |
| Hotel (ped / 15 mins / room) | 0.1732 | 0.0512 | 0.1772 | 0.1575 |
| Industrial (ped / 15mins / 100m$^2$ GFA) | 0.0500 | 0.3410 | 0.2820 | 0.0360 |
| *Pedestrian Generation (ped / 15 mins)* | | | | |
| The Proposed Hotel – 363 rooms | 63 | 19 | 65 | 58 |
| | 82 (2-way) | | 123 (2-way) | |
| 18 Lee Chung Street – 9,000m$^2$ Industrial GFA | 5 | 31 | 26 | 4 |

5.2 **Table 5.1** shows that the Proposed Hotel is expected to generate 82 and 123 pcu/15-minutes (2-way) in AM and PM peak respectively.

## Annual Pedestrian Growth Rate between 2025 – 2033

5.3 To establish the pedestrian growth rate from 2025 to 2033, reference is made to 2 sources of information including:

(i) *Eastern District Population Projection of "2021 - based TPEDM" from Planning Department; and*

(ii) *"Hong Kong Population Projections"* from the Census and Statistics Department.

5.4 Relevant information from the 2021 - based TPEDM is presented in **Table 5.2**.

TABLE 5.2 EASTERN DISTRICT POPULATION PROJECTIONS

| Year | Population [a] | Employment [b] | Overall [c] = [a] + [b] |
|---|---|---|---|
| 2021 | 529,600 | 296,200 | 825,800 |
| 2031 | 467,000 | 277,050 | 744,050 |
| **Average Annual Growth 2021 to 2031** | **-1.3%** | **-0.7%** | **-1.0%** |

5.5 **Table 5.2** shows that the average annual population growth in the Eastern District between 2021 and 2031 is -1.0%.

5.6 Relevant information from the *"Hong Kong Population Projections"* is presented in **Table 5.3**.

TABLE 5.3 HONG KONG POPULATION PROJECTIONS FROM CENSUS AND STATISTICS DEPARTMENT

| **Year** | **Hong Kong Resident Population ('000)** |
|---|---|
| 2025 | 7,559.8 |
| 2033 | 7,903.6 |
| **Average Annual Growth 2025 to 2033** | **0.56%** |

5.7 **Table 5.3** shows that the average annual population growth in Hong Kong between 2025 – 2033 is 0.56%. Hence, the annual growth from 2025 to 2033 adopted is 0.56%.

### Year 2033 Pedestrian Flows

5.8 Year 2033 pedestrian flows are produced with reference to (i) the observed 2025 pedestrian flows, (ii) annual pedestrian growth rate, (iii) expected pedestrian demand due to the planned / committed developments between 2025 – 2033 and the subject site.

5.9 Year 2033 pedestrian flows the following cases are derived:

*2033 without the Proposed Hotel [A]* = *2025 observed pedestrian flows + adopted pedestrian growth from 2025 to 2033 + pedestrian generation of the planned / committed developments*

*2033 with the Proposed Hotel [B]* = *[A] + pedestrian generation of the Proposed Hotel*

### Year 2033 Footpath Level-Of-Service

5.10 Year 2033 peak hour pedestrian flows for the case of 2033 without and with the Proposed Hotel are estimated as shown in **Figure 5.1** and the corresponding LOS assessment is presented in **Table 5.4.**

TABLE 5.4 YEAR 2033 LOS ASSESSMENT

| **Location** | **Clear Width[1] [Effective Width] (m)** | **Peak Period** | **2033 without the Proposed Hotel** | | | **2033 with the Proposed Hotel** | | |
|---|---|---|---|---|---|---|---|---|
| | | | **Flow (ped/ 15 min)** | **Flow rate (ped/ min/m)** | **LOS** | **Flow (ped/ 15 min)** | **Flow rate (ped/ min/m)** | **LOS** |
| P1. Eastern Footpath outside 14-16 Lee Chung Street | 2.5[1.5] | AM | 135 | 6.0 | A | 217 | 9.7 | A |
| | | PM | 226 | 10.1 | A | 349 | 15.6 | A |
| P2. Northern footpath outside 12 Lee Chung Street | 3.0[2.0] | AM | 436 | 14.6 | A | 518 | 17.3 | B |
| | | PM | 468 | 15.6 | A | 591 | 19.7 | B |
| P3. Footpath at Ning Foo Street Amenity Area | 4.5[3.5] | AM | 509 | 9.7 | A | 591 | 11.3 | A |
| | | PM | 495 | 9.5 | A | 618 | 11.8 | A |

Note: [1] The width excludes railing and obstructions.

5.11 The results in **Table 5.4** show that the assessed footpaths operate with LOS A or B, which is acceptable.

### Potential Impact to Public Transport Service

5.12 In view that Chai Wan MTR station exit C is located only around 200m away, it is expected that the most pedestrians generated would use the MTR Island Line at Chai Wan Station. The operational performance of the MTR Island Line is obtained from "Examination of Estimates of Expenditure 2025-26" in Finance Committee of Legislative Council, and is presented in **Table 5.5**.

TABLE 5.5 OPERATIONAL PERFORMANCE OF MTR ISLAND LINE IN 2024

| **Item** | **Parameters** |
|---|---|
| Carrying capacity [a] | 80,000 passengers / hour |
| Current Patronage [b] | 44,100 passengers / hour |
| Current Loading [b]/[a] {Critical Link} | 55% {Tin Hau to Causeway Bay} |

Source: Reply Serial No. TLB199 for Question Serial No. 2031, Controlling Officer's Reply, Examination of Estimates of Expenditure 2025-26. Finance Committee. Legislative Council. April 2025.
< https://www.legco.gov.hk/yr2025/english/fc/fc/w_q/tlb-e.pdf>

5.13 As shown in **Table 5.5**, the MTR Island Line has a carrying capacity of 80,000 passenger / hour and the current loading for the section between Tin Hau to Causeway Bay, is 55%. As presented in **Table 5.1**, the Proposed Hotel is expected to generate up to 123 pedestrians during the peak hour. If all pedestrians generated during the peak hour use the MTR, the impact is expected to be negligible [Calculation: 123 ÷ 80,000 = 0.2%].

# 6.0 SUMMARY

6.1 A Section 16 planning application for the minor relaxation of the plot ratio for 14,068 $m^2$ industrial use at the Subject Site was approved by the Town Planning Board (TPB ref: A/H20/195) on 4th December 2020. The Owner now has the intention to develop a 363-room hotel.

6.2 The Subject Site is conveniently located close to public transport services, including the Chai Wan MTR station and numerous franchised bus routes and public light buses. Pedestrian facilities are provided in the vicinity of the Subject Site, including footpaths along road carriageways and at-grade pedestrian crossings which connect to the Chai Wan MTR station.

6.3 Manual classified counts were conducted at junctions, which are located in the vicinity in order to establish the existing traffic flows during the AM and PM peak hours.

6.4 The internal transport facilities provided for the Proposed Hotel comply with the recommendations of the HKPSG. Swept path analysis was conducted to ensure that all vehicles could enter and leave the Proposed Hotel and their respective space / bay with ease.

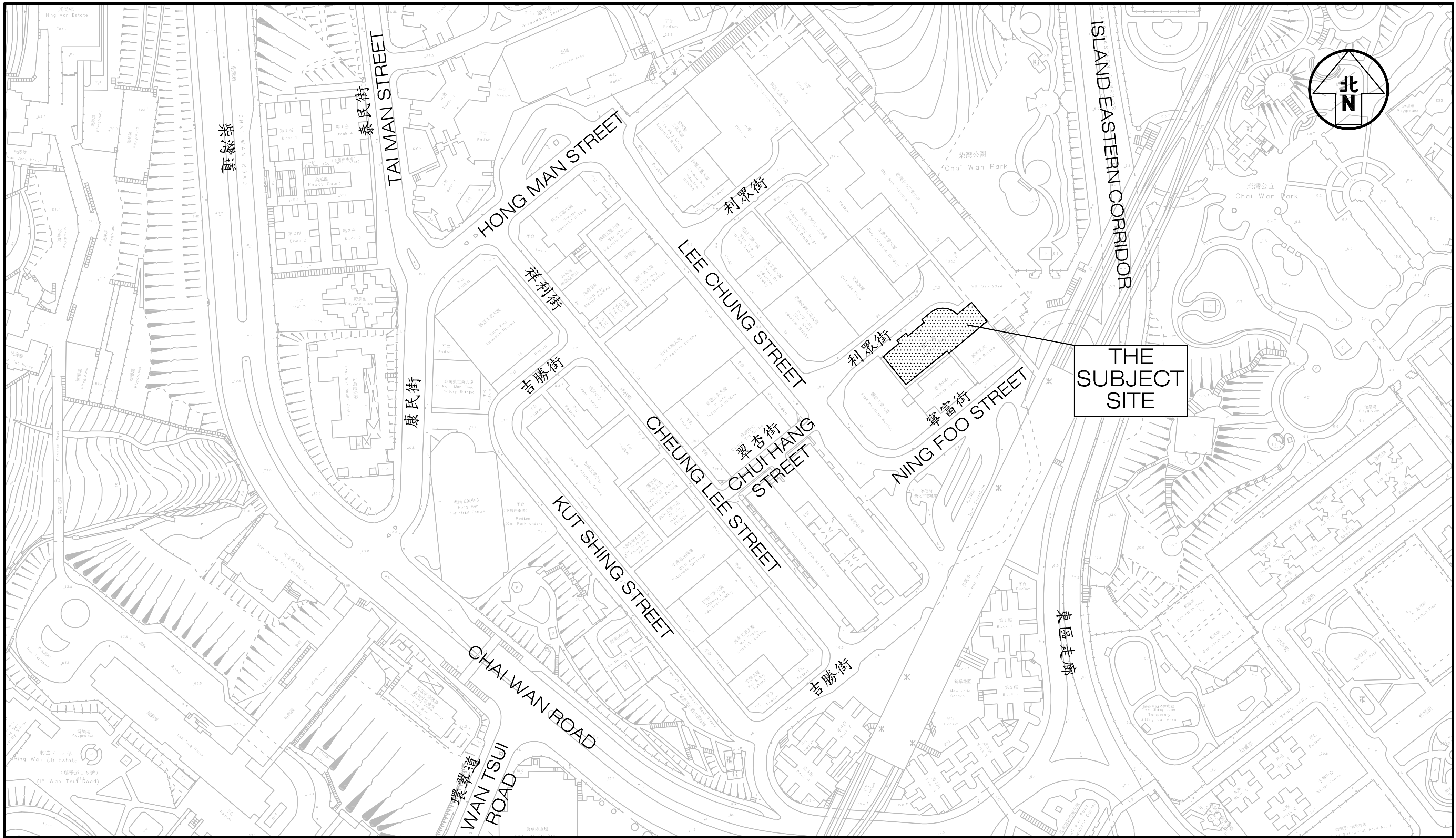
6.5 Year 2033 peak hour traffic flows for the junction capacity analysis are produced (i) with reference to the BDTM; (ii) estimated traffic growth from 2031 to 2033; (iii) expected traffic generation by the planned / committed developments in the vicinity; and (iv) traffic generation of the Proposed Hotel.

6.6 This TIA concludes that the traffic generation of the Proposed Hotel has negligible traffic impact to the surrounding road network, and, is acceptable from traffic terms.

6.7 The assessment of footpaths found that the Proposed Hotel has negligible impact.

6.8 It can be concluded that the Proposed Hotel will result in no adverse traffic impact to the surrounding road network. From traffic engineering grounds, the Proposed Hotel is acceptable.

# Figures



TAI MAN STREET
泰民街
柴灣道
CHAI WAN ROAD
HONG MAN STREET
康民街
祥利街
吉勝街
LEE CHUNG STREET
利眾街
ISLAND EASTERN CORRIDOR
柴灣公園
Chai Wan Park
THE SUBJECT SITE
寧富街
NING FOO STREET
翠杏街
CHUI HANG STREET
CHEUNG LEE STREET
KUT SHING STREET
東區走廊
CHAI WAN ROAD
環翠道
WAN TSUI ROAD
北
N

Project Title

SECTION 16 PLANNING APPLICATION IN SUPPORT OF PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12 AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG

J7408

Figure Title

## LOCATION OF THE SUBJECT SITE

| Figure No. | Revision |
|---|---|
| 1.1 | A |

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|---|---|---|
| L K W | S C Y | K C |

| Scale in A4 | Date |
|---|---|
| 1 : 2,500 | 21 AUG 2025 |

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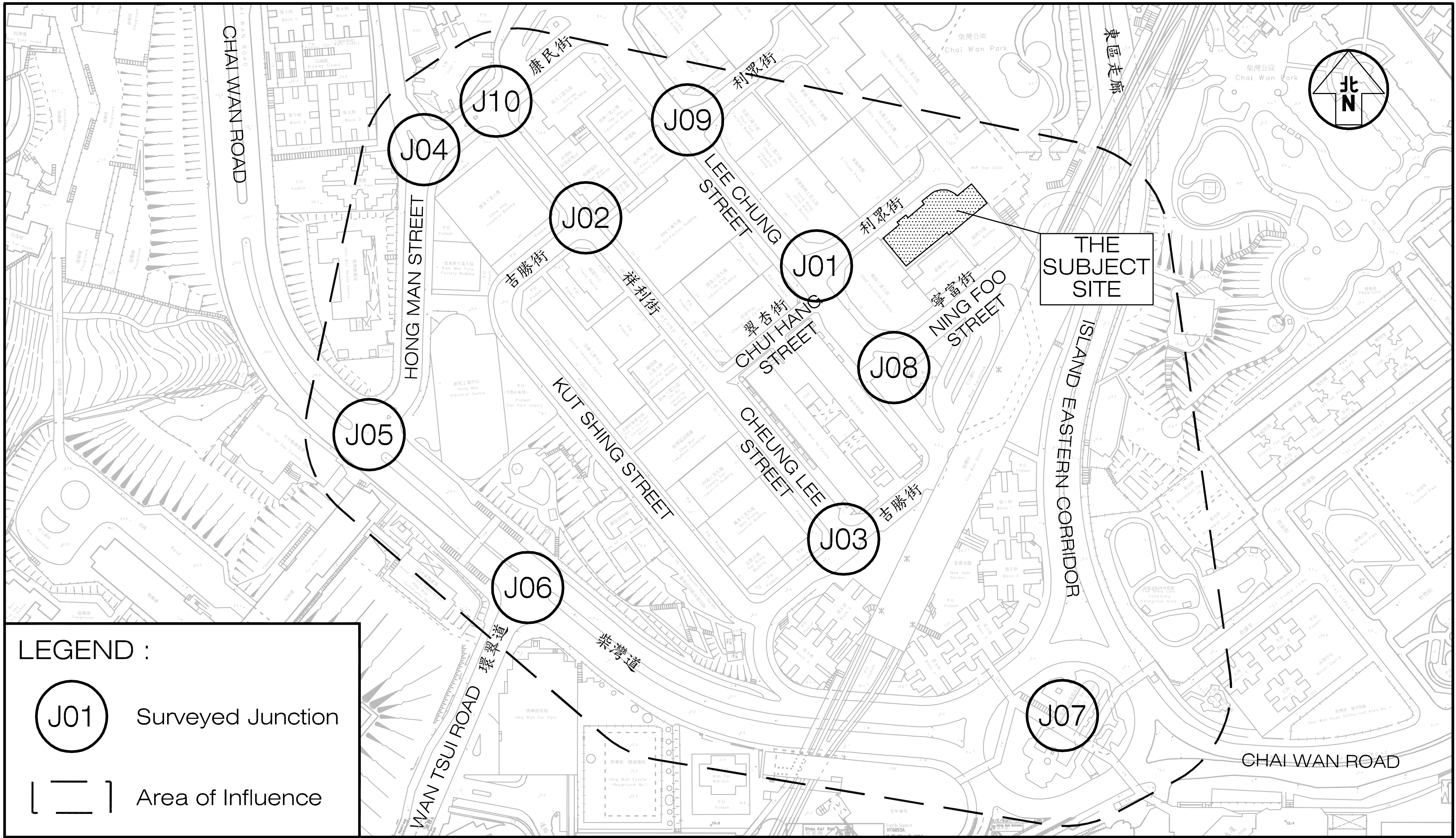
CHAI WAN ROAD
康民街
J10
J04
J09
利眾街
東區走廊
HONG MAN STREET
J02
LEE CHUNG STREET
利眾街
J01
THE SUBJECT SITE
吉勝街
祥利街
翠杏街
CHUI HANG STREET
寧富街
NING FOO STREET
J08
ISLAND EASTERN CORRIDOR
KUT SHING STREET
CHEUNG LEE STREET
J05
J03
吉勝街
J06
環翠道
柴灣道
WAN TSUI ROAD
J07
CHAI WAN ROAD
北
N
LEGEND :
J01
Surveyed Junction
Area of Influence

Project Title

SECTION 16 PLANNING APPLICATION IN SUPPORT OF PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12 AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG

J7408

Figure Title

LOCATION OF THE SURVEYED JUNCTIONS

| Figure No. | Revision |
|---|---|
| 2.1 | A |

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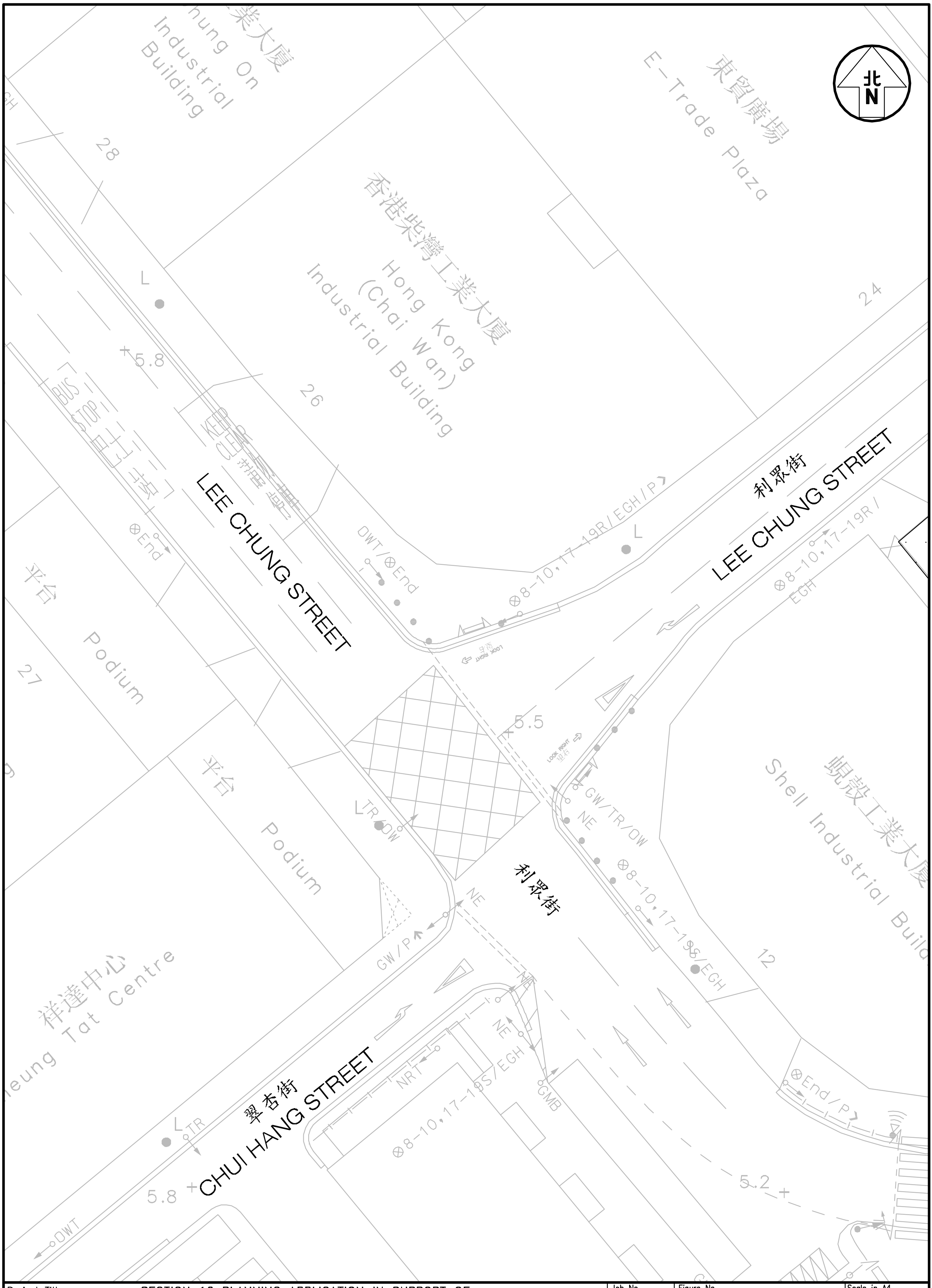
北
N
業大廈
hung On
Industrial
Building
東貿廣場
E-Trade Plaza
香港柴灣工業大廈
Hong Kong
(Chai Wan)
Industrial Building
28
26
24
27
12
5.8
5.5
5.2
BUS STOP
巴士站
KEEP CLEAR
請勿停車
LEE CHUNG STREET
利眾街
LEE CHUNG STREET
利眾街
DWT/⊗End
⊗8-10,17-19R/EGH/P
⊗8-10,17-19R/EGH
⊗End
平台
Podium
平台
Podium
LOOK RIGHT
望右
GW/TR/DW
NE
TR/DW
⊗8-10,17-19S/EGH
蜆殼工業大廈
Shell Industrial Build
祥達中心
eung Tat Centre
GW/P
NE
GMB
NRT
⊗8-10,17-19S/EGH
翠杏街
CHUI HANG STREET
TR
DWT
⊗End/P

| Project Title | SECTION 16 PLANNING APPLICATION IN SUPPORT OF<br>PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION<br>FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12<br>AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG | Job No. | J7408 | Figure No. | 2.2 | Scale in A4 | 1 : 400 |
|---|---|---|---|---|---|---|---|
| | | Designed by | L K W | Drawn by | S C Y | Checked by | K C |
| | | Revision | A | Date | 21 AUG 2025 | | |

Figure Title

JUNCTION LAYOUT OF
LEE CHUNG STREET / CHUI HANG STREET

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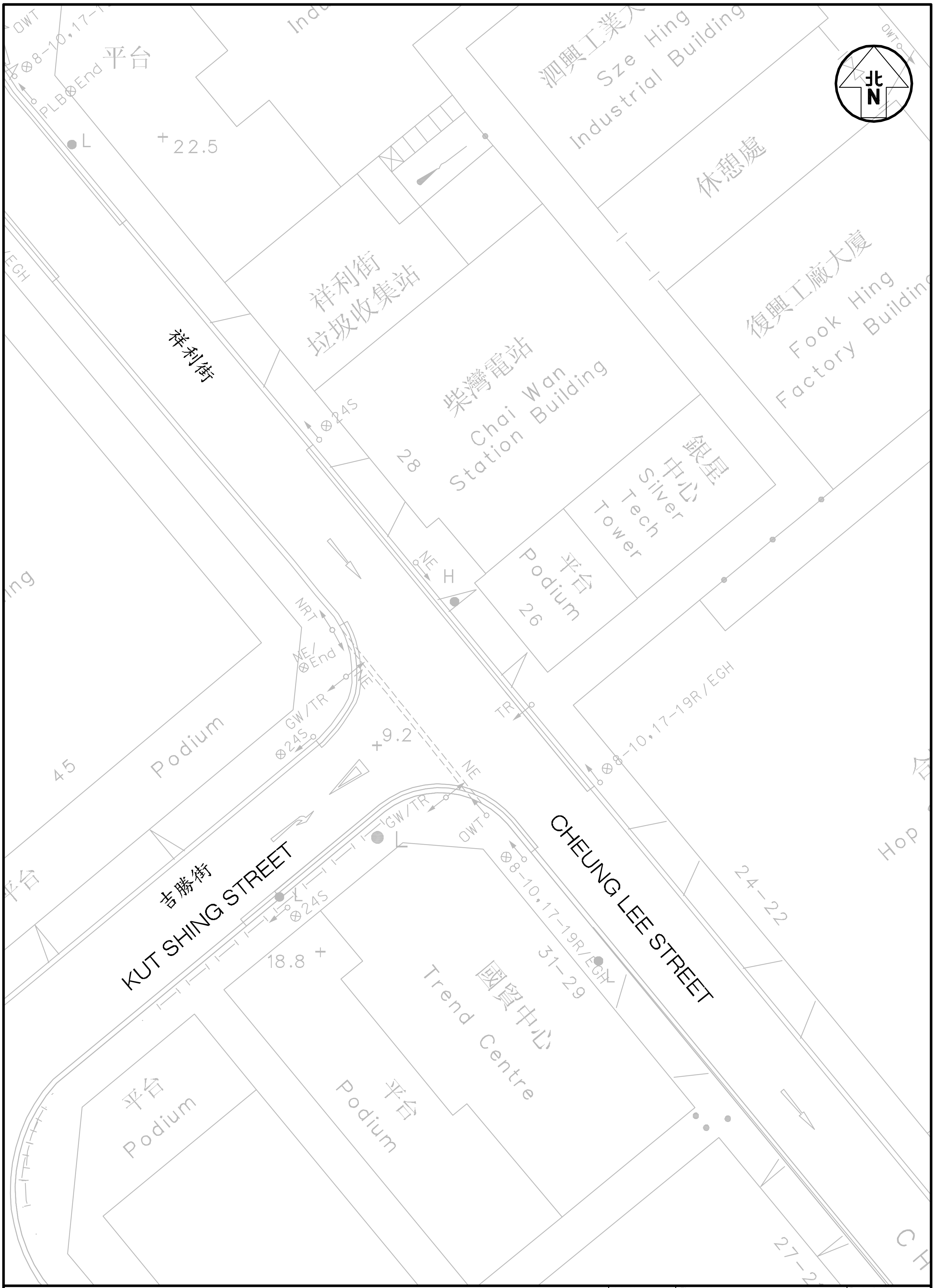

北
N
泗興工業大
Sze Hing
Industrial Building
休憩處
復興工廠大廈
Fook Hing
Factory Building
祥利街
垃圾收集站
柴灣電站
Chai Wan
Station Building
28
銀星中心
Silver
Tech
Tower
平台
Podium
26
祥利街
+22.5
平台
45
Podium
+9.2
NE
NRT
NE/
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GW/TR
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OWT
⊗8-10,17-19R/EGH
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24-22
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吉勝街
KUT SHING STREET
CHEUNG LEE STREET
18.8 +
國貿中心
Trend Centre
31-29
平台
Podium
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Podium
27-2

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|---|---|---|---|---|---|---|
| Project Title | SECTION 16 PLANNING APPLICATION IN SUPPORT OF<br>PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION<br>FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12<br>AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG | Job No.<br>J7408 | Figure No.<br>2.3 | | | Scale in A4<br>1 : 400 |
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Figure Title

JUNCTION LAYOUT OF
CHEUNG LEE SREET / KUT SHING STREET (WEST JUNCTION)

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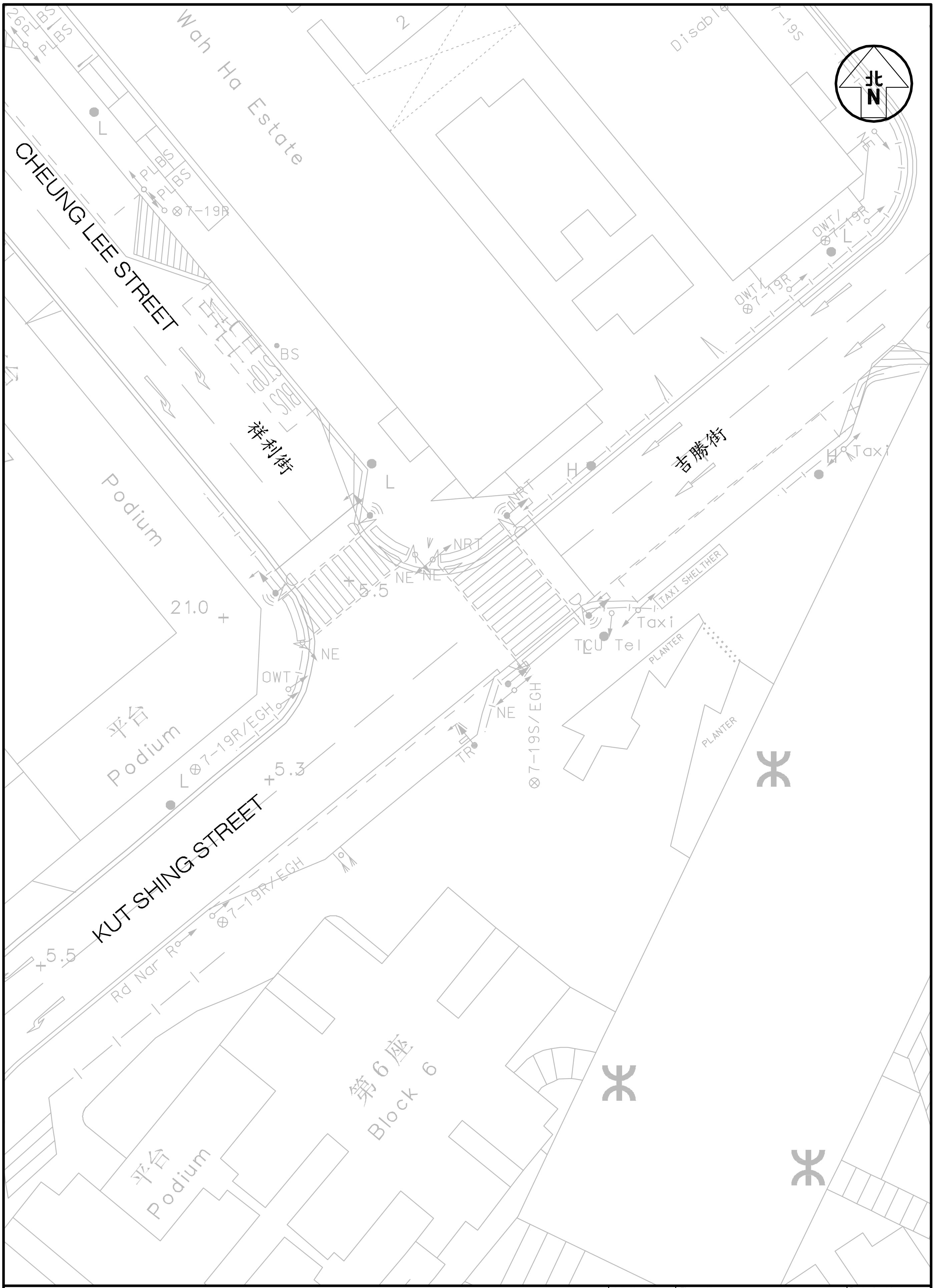
CHEUNG LEE STREET
祥利街
KUT SHING STREET
吉勝街
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Podium
平台 Podium
第6座 Block 6
平台 Podium
21.0
+5.5
+5.3
+5.5
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Project Title

SECTION 16 PLANNING APPLICATION IN SUPPORT OF
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12
AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG

Figure Title

JUNCTION LAYOUT OF
CHEUNG LEE STREET / KUT SHING STREET (EAST JUNCTION)

| Job No. | Figure No. | | | Scale in A4 |
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| J7408 | 2.4 | | | 1 : 400 |
| Designed by | Drawn by | Checked by | Revision | Date |
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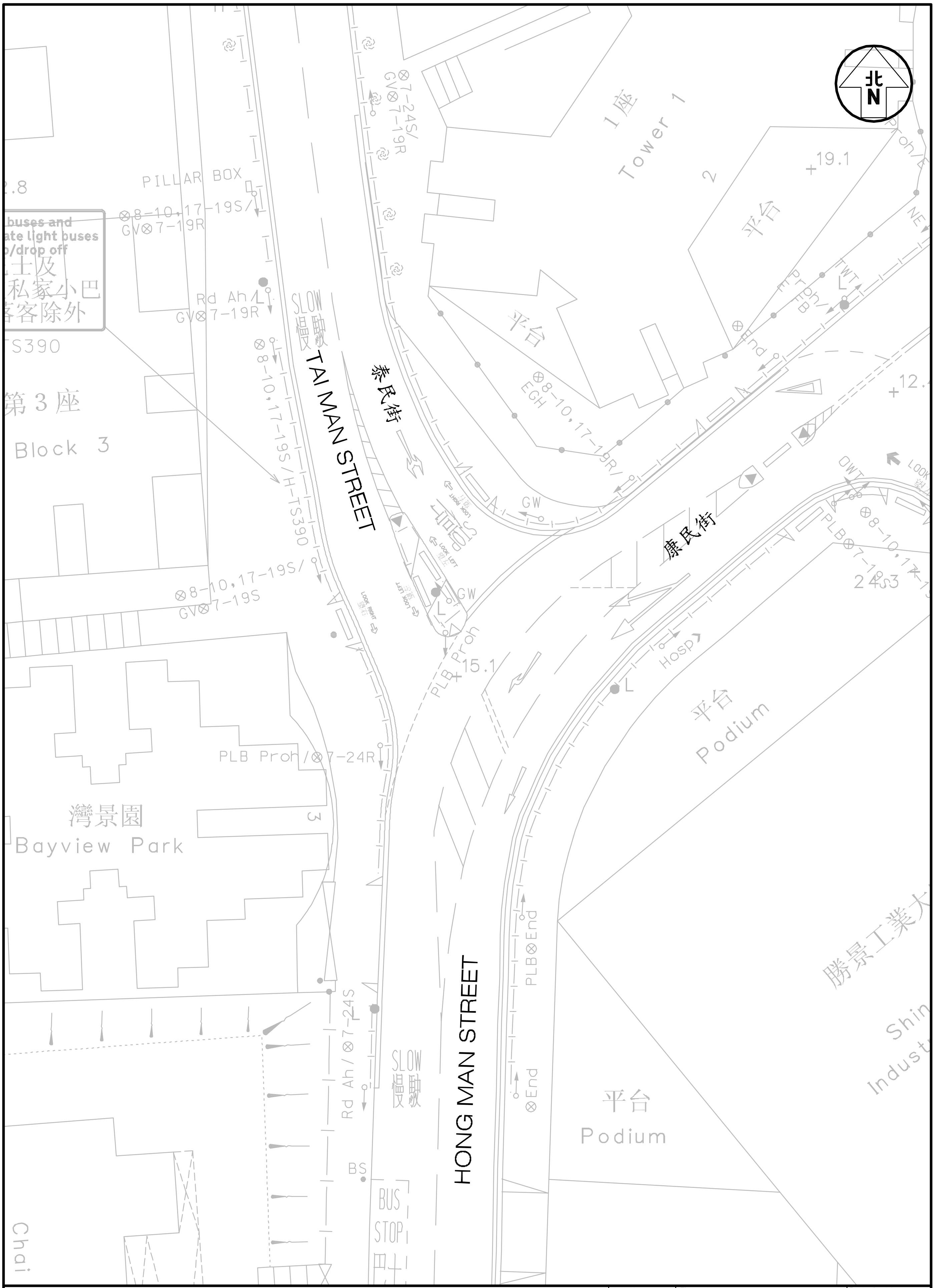
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灣景園
第3座
Block 3
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SLOW 慢駛
BUS STOP
PILLAR BOX
LOOK LEFT
LOOK RIGHT
GW
BS
Hosp
PLB Proh
PLB⊗End
⊗End
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⊗8-10,17-19S/GV⊗7-19R
⊗8-10,17-19S/GV⊗7-19S
⊗8-10,17-19S/H-TS390
⊗7-24S/GV⊗7-19R
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Project Title

SECTION 16 PLANNING APPLICATION IN SUPPORT OF
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12
AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG

Figure Title

JUNCTION LAYOUT OF
HONG MAN STREET / TAI MAN STREET

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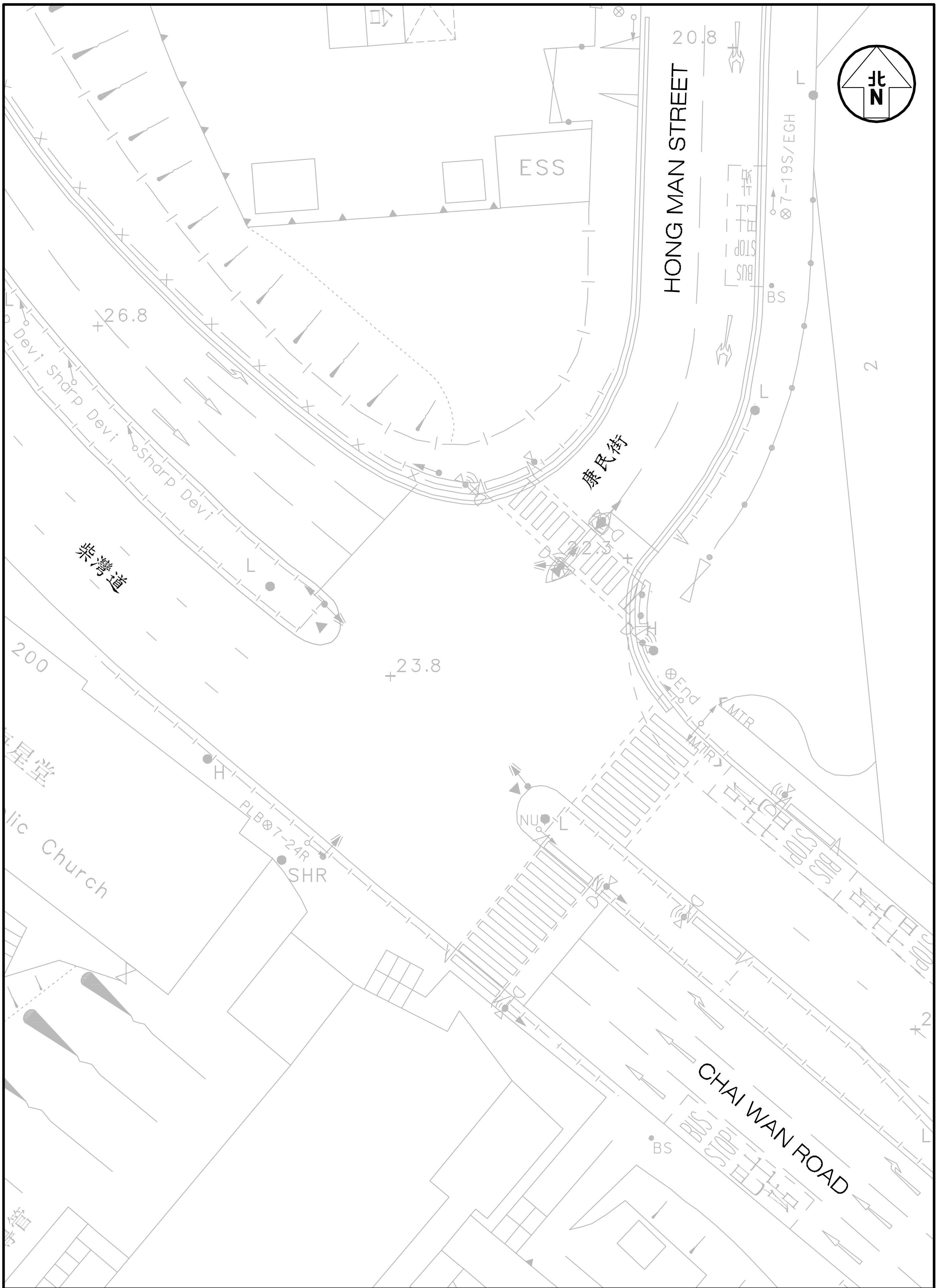
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Project Title
SECTION 16 PLANNING APPLICATION IN SUPPORT OF
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12
AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG

Figure Title
JUNCTION LAYOUT OF
CHAI WAN ROAD / HONG MAN STREET

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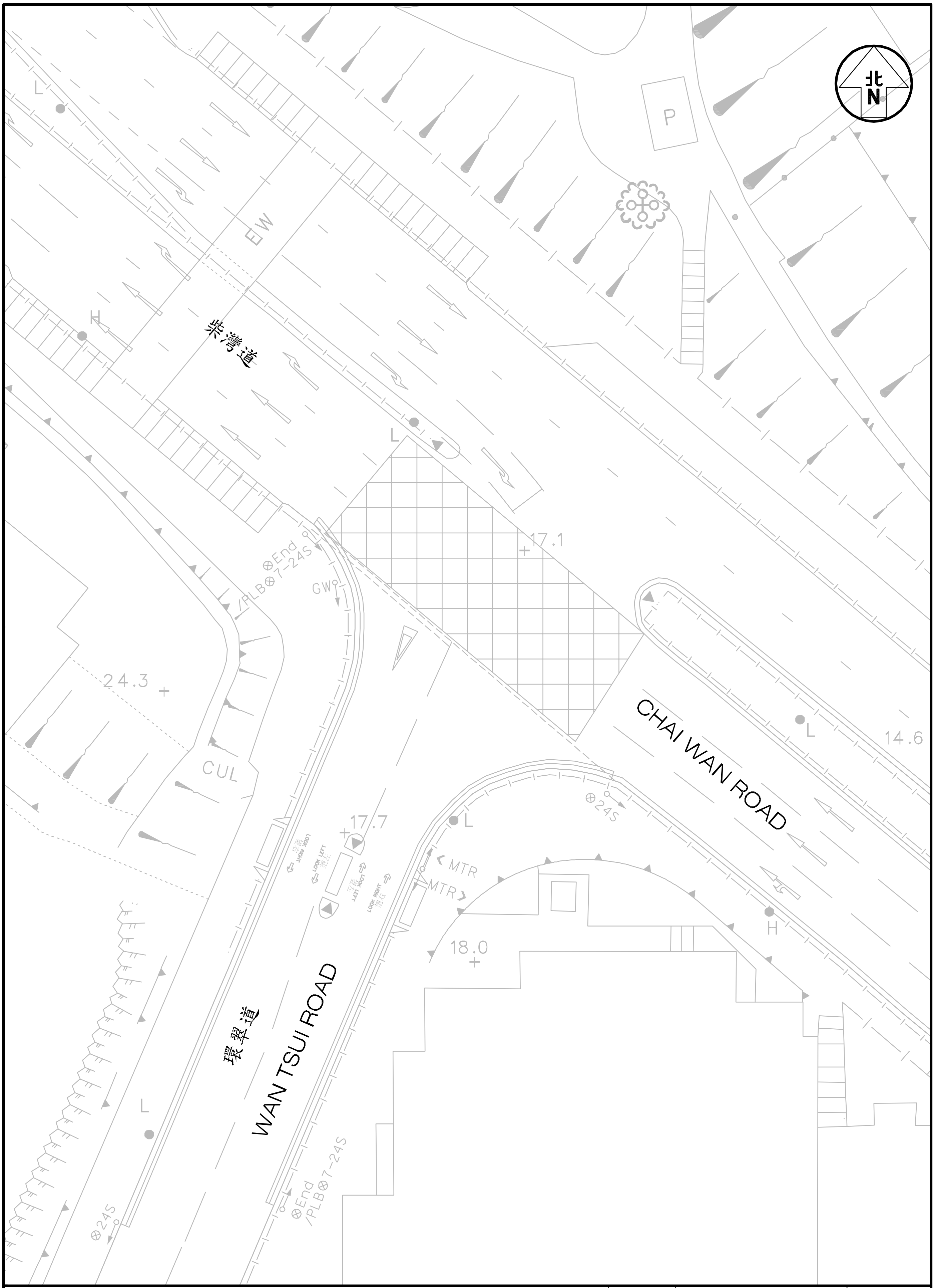
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LOOK LEFT
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LOOK RIGHT
望右
MTR
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環翠道
WAN TSUI ROAD
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Project Title
SECTION 16 PLANNING APPLICATION IN SUPPORT OF
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12
AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG

Figure Title
JUNCTION LAYOUT OF
CHAI WAN ROAD / WAN TSUI ROAD

| Job No. | Figure No. | | | Scale in A4 |
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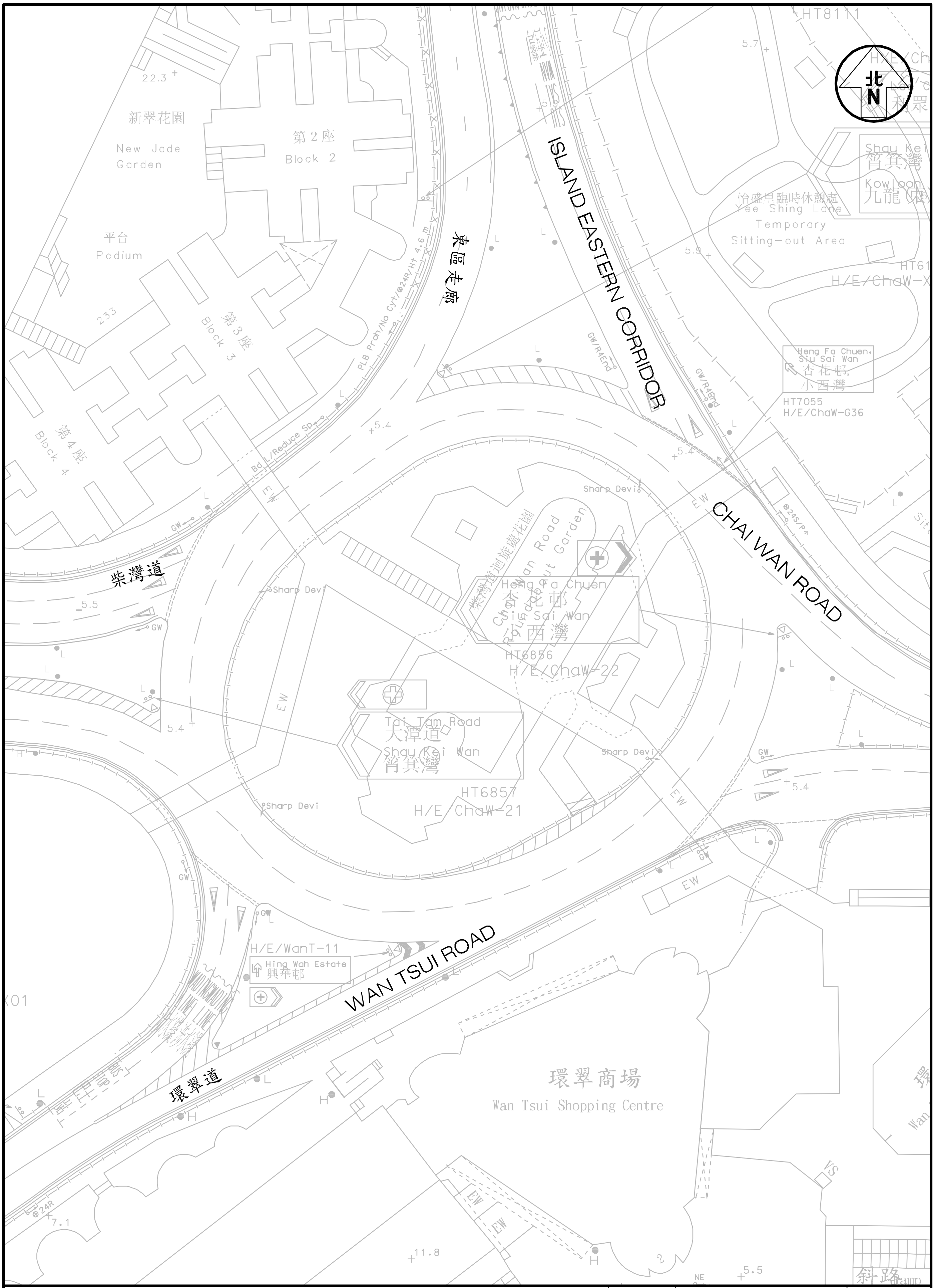
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ISLAND EASTERN CORRIDOR
東區走廊
CHAI WAN ROAD
柴灣道
WAN TSUI ROAD
環翠道
新翠花園
New Jade Garden
第2座
Block 2
第3座
Block 3
第4座
Block 4
平台
Podium
怡盛里臨時休憩處
Yee Shing Lane Temporary Sitting-out Area
柴灣道迴旋處花園
Chai Wan Road Roundabout Garden
Heng Fa Chuen 杏花邨
Siu Sai Wan 小西灣
Tai Tam Road 大潭道
Shau Kei Wan 筲箕灣
Kowloon 九龍
Hing Wah Estate 興華邨
環翠商場
Wan Tsui Shopping Centre
HT6856
H/E/ChaW-22
HT6857
H/E/ChaW-21
HT7055
H/E/ChaW-G36
H/E/WanT-11
HT8111
Sharp Devi
斜路

Project Title

SECTION 16 PLANNING APPLICATION IN SUPPORT OF
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12
AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG

Figure Title

JUNCTION LAYOUT OF
CHAI WAN ROAD ROUNDABOUT

| Job No. | Figure No. | | Scale in A4 |
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| J7408 | 2.8 | | 1 : 750 |

| Designed by | Drawn by | Checked by | Revision | Date |
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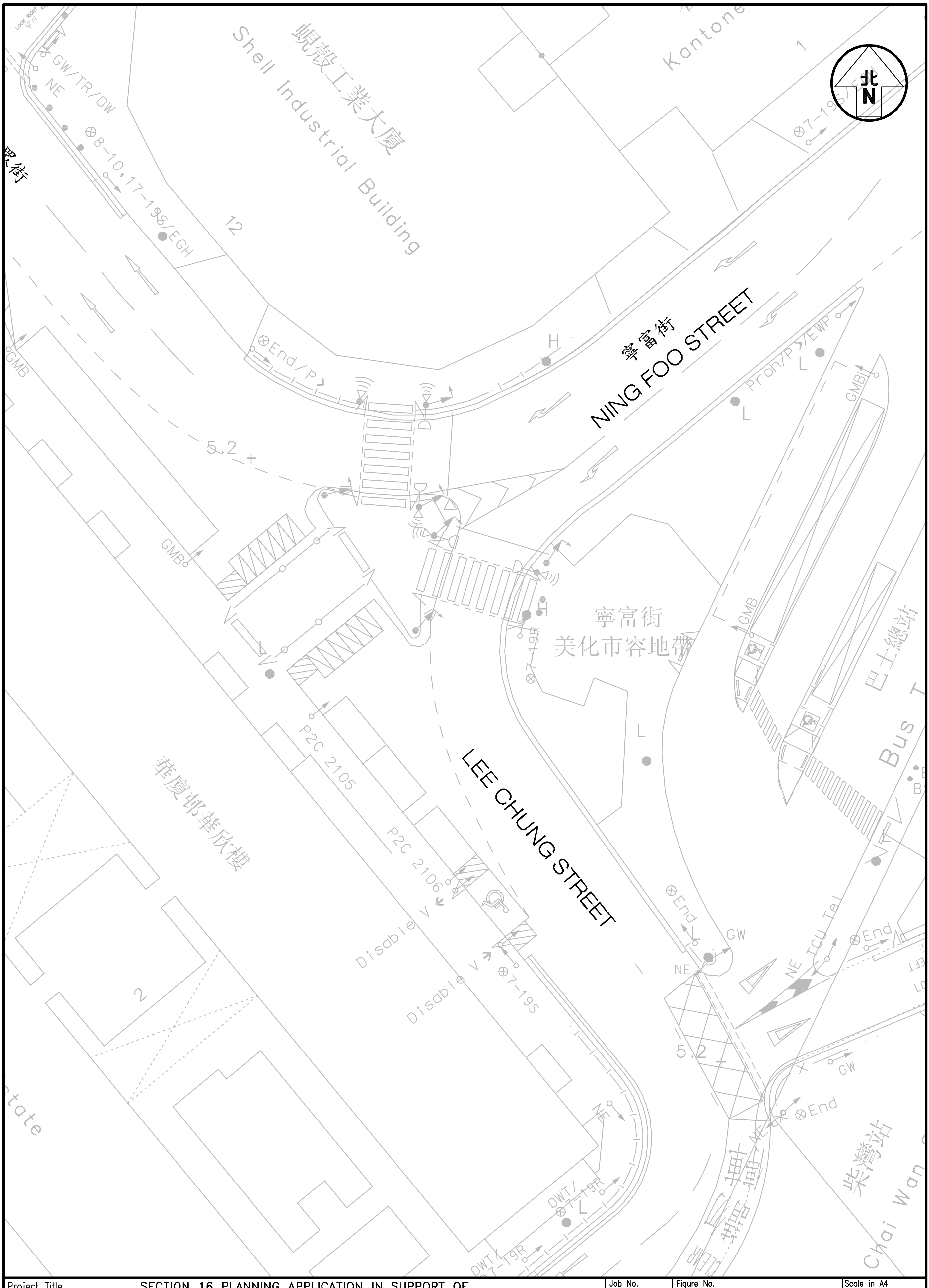

Shell Industrial Building
蜆殼工業大廈
Kantone
12
1
寧富街
NING FOO STREET
LEE CHUNG STREET
寧富街
美化市容地帶
巴士總站
Bus T
柴灣站
Chai Wan
華廈邨華欣樓
2
P2C 2105
P2C 2106
Disable V
Disable V
GMB
GMB
GMB
GMB
5.2
5.2
GW/TR/DW
NE
⊗8-10,17-19S/EGH
⊗End/P
Proh/P>/EWP
⊗7-19S
⊗7-19R
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Project Title

SECTION 16 PLANNING APPLICATION IN SUPPORT OF
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12
AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG

Figure Title

JUNCTION LAYOUT OF
NING FOO STREET / LEE CHUNG STREET

| Job No. | Figure No. | | | Scale in A4 |
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| J7408 | 2.9 | | | 1 : 400 |
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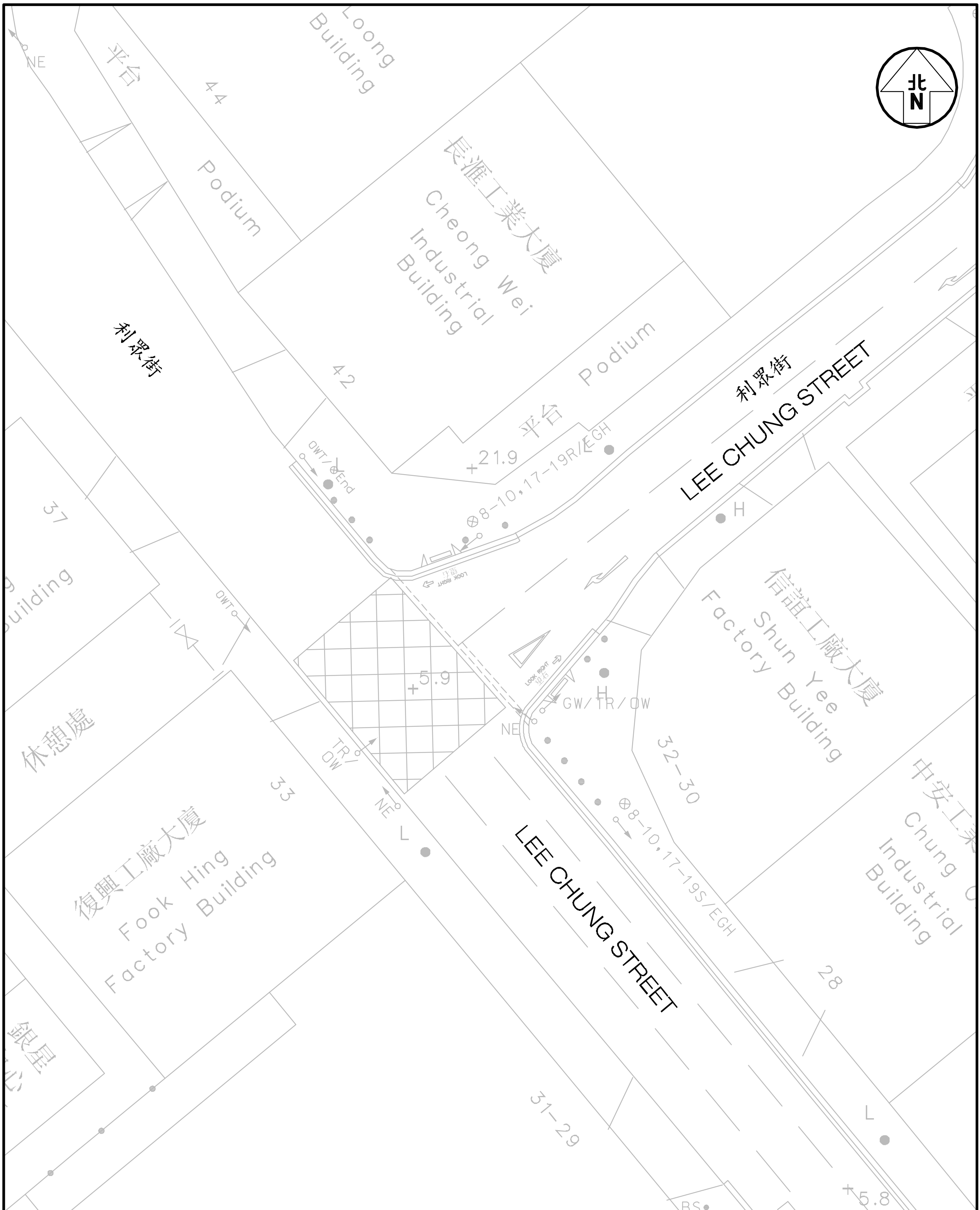

北 N
Loong Building
44
Podium
平台
長滙工業大廈
Cheong Wei Industrial Building
利眾街
42
Podium
平台
+21.9
利眾街
LEE CHUNG STREET
8-10,17-19R/EGH
OWT/ End
H
37
Building
OWT
休憩處
+5.9
GW/TR/OW
NE
H
信誼工廠大廈
Shun Yee Factory Building
32-30
中安工業
Chung Industrial Building
33
TR/ OW
NE
L
8-10,17-19S/EGH
復興工廠大廈
Fook Hing Factory Building
LEE CHUNG STREET
銀星
28
L
31-29
+5.8
BS
BS
BUS STOP 巴士站
KEEP CLEAR
9R/EGH
工廠大廈
Factory Building
NE
LOOK RIGHT 望右

Project Title

SECTION 16 PLANNING APPLICATION IN SUPPORT OF
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12
AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG

Job No. J7408
Figure No. 2.10
Scale in A4 1 : 400
Designed by L K W
Drawn by S C Y
Checked by K C
Revision A
Date 21 AUG 2025

Figure Title

JUNCTION LAYOUT OF
LEE CHUNG STREET OUTSIDE SHUN YEE FACTORY BUILDING

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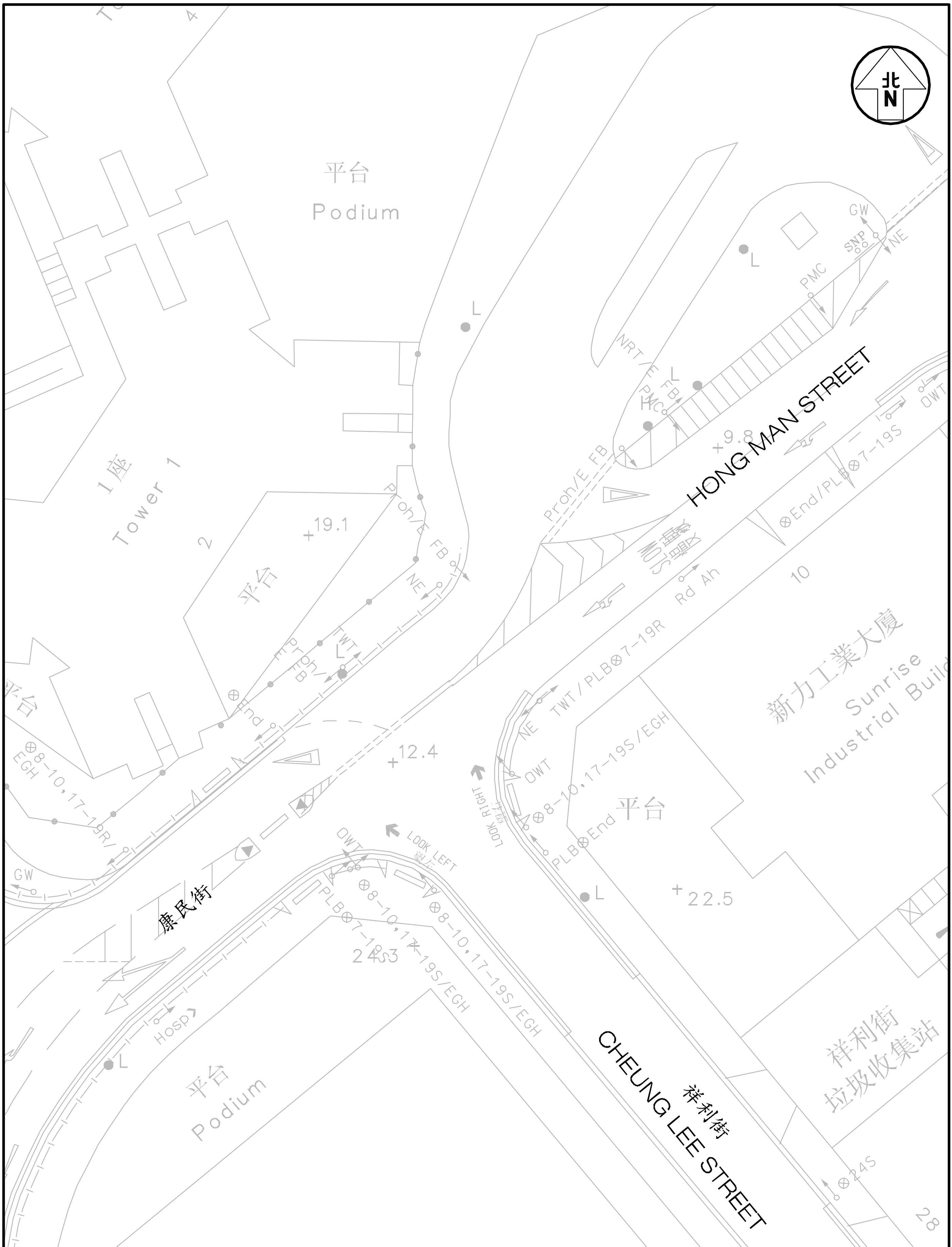
T:\JOB\J7400-J7449\J7408\2025 08\Fig 2.2 - 2.11 RevA.dwg



北
N
平台
Podium
1座
Tower 1
2
+19.1
平台
+12.4
+9.8
HONG MAN STREET
康民街
10
Rd Ah
新力工業大廈
Sunrise
Industrial Build
平台
+22.5
LOOK LEFT
LOOK RIGHT
OWT
TWT/PLB⊗7-19R
⊗8-10,17-19S/EGH
PLB⊗End
⊗End/PLB⊗7-19S
2433
Hosp
平台
Podium
CHEUNG LEE STREET
祥利街
祥利街
垃圾收集站
⊗24S
28
GW
SNP
NE
PMC
NRT/E FB
Proh/E FB
L

Project Title

SECTION 16 PLANNING APPLICATION IN SUPPORT OF
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12
AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG

| Job No. | Figure No. | | | Scale in A4 |
|---|---|---|---|---|
| J7408 | 2.11 | | | 1 : 400 |
| Designed by | Drawn by | Checked by | Revision | Date |
| L K W | S C Y | K C | A | 21 AUG 2025 |

Figure Title

JUNCTION LAYOUT OF
HONG MAN STREET / CHEUNG LEE STREET

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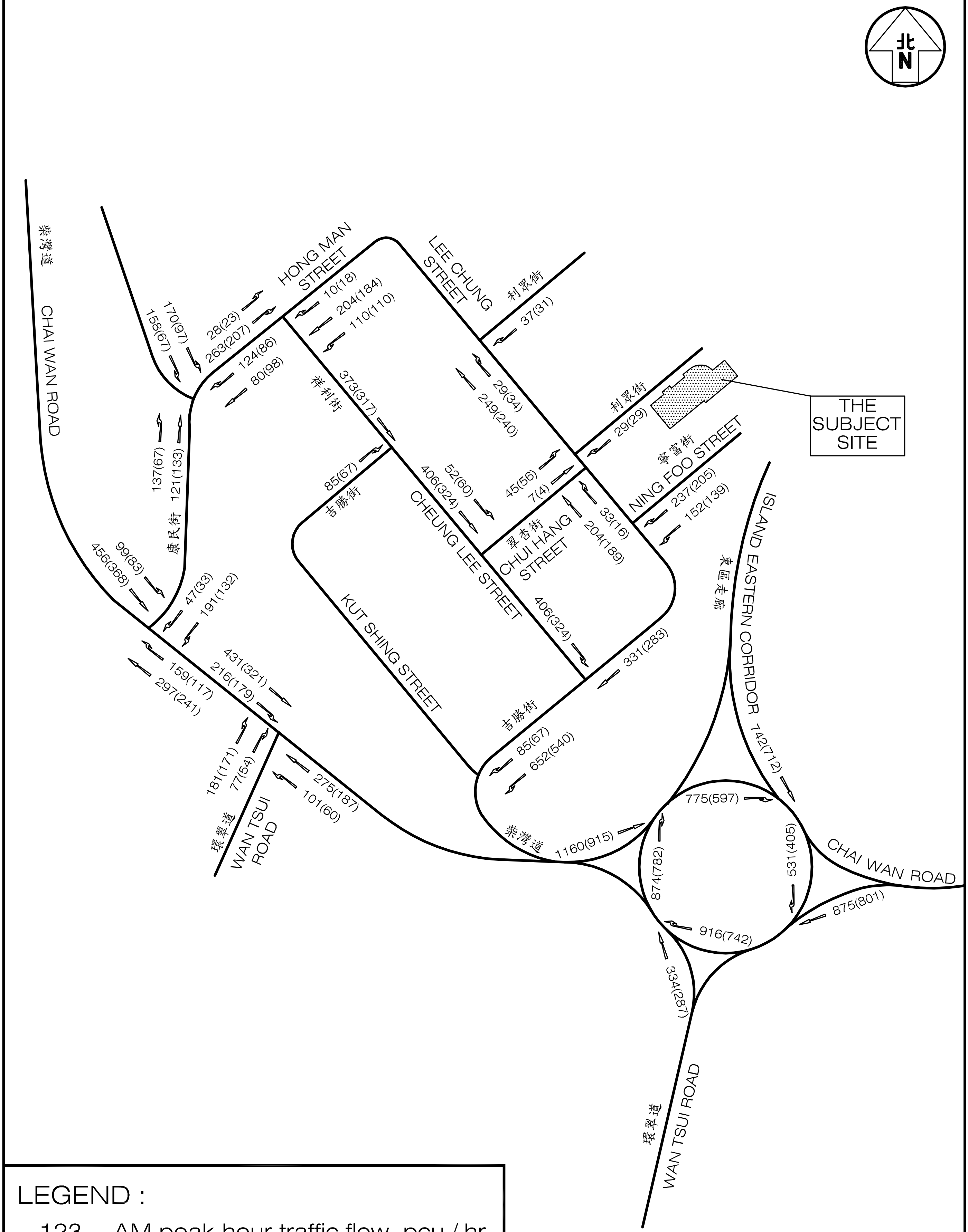
T:\JOB\J7400-J7449\J7408\2025 08\Fig 2.2 - 2.11 RevA.dwg


北
N
柴灣道
CHAI WAN ROAD
HONG MAN STREET
LEE CHUNG STREET
利眾街
37(31)
170(97)
158(67)
28(23)
263(207)
10(18)
204(184)
110(110)
124(86)
80(98)
祥利街
373(317)
29(34)
249(240)
利眾街
29(29)
THE SUBJECT SITE
寧富街
NING FOO STREET
137(67)
121(133)
康民街
85(67)
吉勝街
52(60)
406(324)
CHEUNG LEE STREET
45(56)
7(4)
翠杏街
CHUI HANG STREET
33(16)
204(189)
237(205)
152(139)
ISLAND EASTERN CORRIDOR
東區走廊
99(83)
456(368)
47(33)
191(132)
KUT SHING STREET
406(324)
331(283)
159(117)
297(241)
431(321)
216(179)
吉勝街
85(67)
652(540)
742(712)
181(171)
77(54)
275(187)
101(60)
環翠道
WAN TSUI ROAD
775(597)
柴灣道
1160(915)
874(782)
531(405)
CHAI WAN ROAD
875(801)
916(742)
334(287)
環翠道
WAN TSUI ROAD

LEGEND :

123 - AM peak hour traffic flow, pcu / hr

(456) - PM peak hour traffic flow, pcu / hr

SECTION 16 PLANNING APPLICATION IN SUPPORT OF
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12
AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG

YEAR 2025 EXISTING PEAK HOUR TRAFFIC FLOWS

| Job No. | Figure No. | | | Scale in A4 |
|---|---|---|---|---|
| J7408 | 2.12 | | | N.T.S. |
| Designed by | Drawn by | Checked by | Revision | Date |
| L K W | S C Y | K C | C | 20 NOV 2025 |

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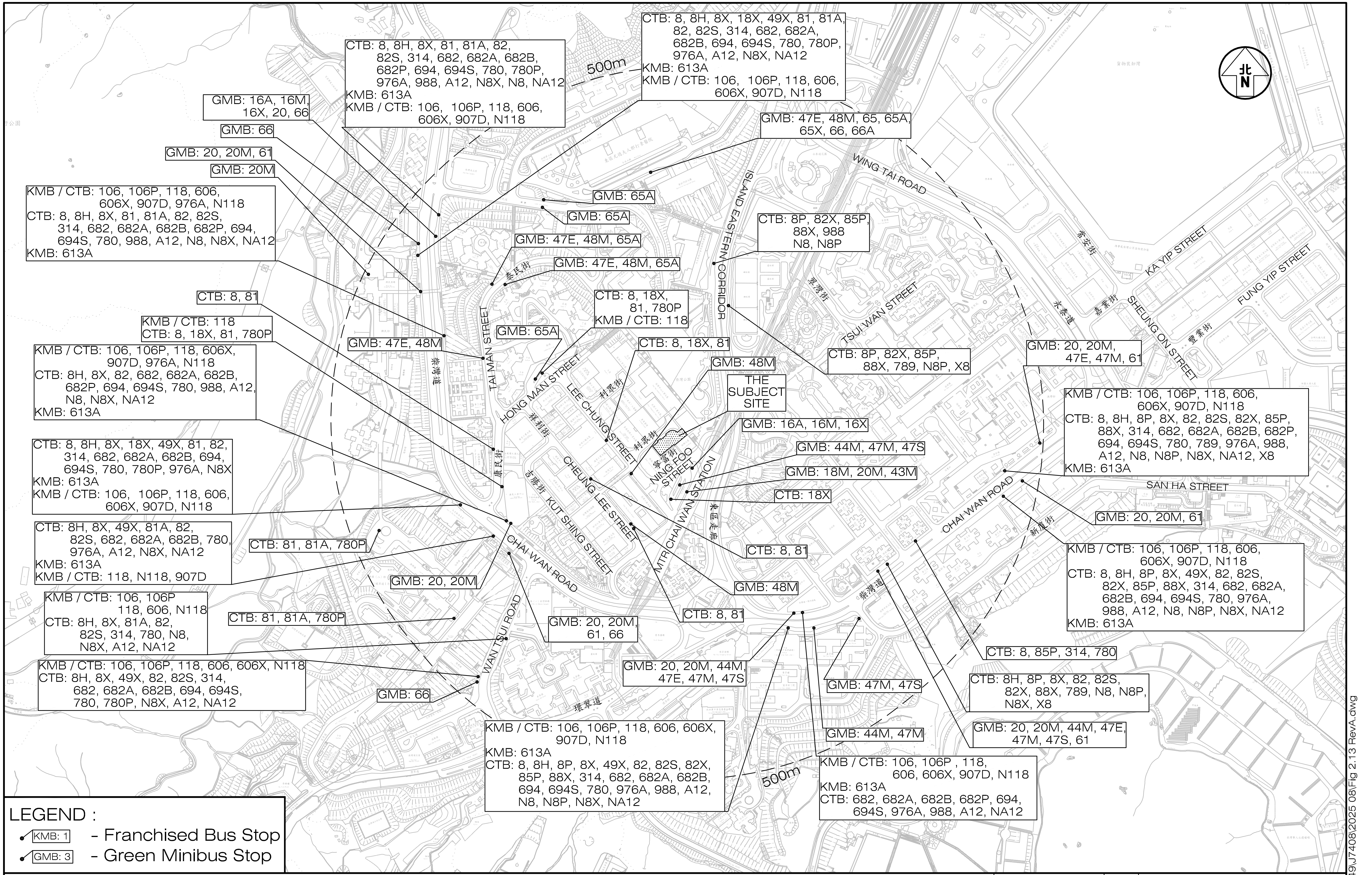
T:\JOB\J7400-J7449\J7408\2025 11\Fig 2.12 RevC.dwg


CTB: 8, 8H, 8X, 18X, 49X, 81, 81A, 82, 82S, 314, 682, 682A, 682B, 694, 694S, 780, 780P, 976A, A12, N8X, NA12
KMB: 613A
KMB / CTB: 106, 106P, 118, 606, 606X, 907D, N118
CTB: 8, 8H, 8X, 81, 81A, 82, 82S, 314, 682, 682A, 682B, 682P, 694, 694S, 780, 780P, 976A, 988, A12, N8X, N8, NA12
KMB: 613A
KMB / CTB: 106, 106P, 118, 606, 606X, 907D, N118
500m
GMB: 16A, 16M, 16X, 20, 66
GMB: 66
GMB: 20, 20M, 61
GMB: 20M
KMB / CTB: 106, 106P, 118, 606, 606X, 907D, 976A, N118
CTB: 8, 8H, 8X, 81, 81A, 82, 82S, 314, 682, 682A, 682B, 682P, 694, 694S, 780, 988, A12, N8, N8X, NA12
KMB: 613A
GMB: 47E, 48M, 65, 65A, 65X, 66, 66A
GMB: 65A
GMB: 65A
GMB: 47E, 48M, 65A
GMB: 47E, 48M, 65A
CTB: 8P, 82X, 85P, 88X, 988 N8, N8P
WING TAI ROAD
ISLAND EASTERN CORRIDOR
KA YIP STREET
FUNG YIP STREET
SHEUNG ON STREET
TSUI WAN STREET
CTB: 8, 81
CTB: 8, 18X, 81, 780P
KMB / CTB: 118
KMB / CTB: 118
CTB: 8, 18X, 81, 780P
GMB: 65A
GMB: 47E, 48M
TAI MAN STREET
CTB: 8, 18X, 81
GMB: 48M
THE SUBJECT SITE
CTB: 8P, 82X, 85P, 88X, 789, N8P, X8
GMB: 20, 20M, 47E, 47M, 61
KMB / CTB: 106, 106P, 118, 606X, 907D, 976A, N118
CTB: 8H, 8X, 82, 682, 682A, 682B, 682P, 694, 694S, 780, 988, A12, N8, N8X, NA12
KMB: 613A
HONG MAN STREET
LEE CHUNG STREET
GMB: 16A, 16M, 16X
KMB / CTB: 106, 106P, 118, 606, 606X, 907D, N118
CTB: 8, 8H, 8P, 8X, 82, 82S, 82X, 85P, 88X, 314, 682, 682A, 682B, 682P, 694, 694S, 780, 789, 976A, 988, A12, N8, N8P, N8X, NA12, X8
KMB: 613A
GMB: 44M, 47M, 47S
GMB: 18M, 20M, 43M
CTB: 18X
NING FOO STREET
MTR CHAI WAN STATION
SAN HA STREET
CTB: 8, 8H, 8X, 18X, 49X, 81, 82, 314, 682, 682A, 682B, 694, 694S, 780, 780P, 976A, N8X
KMB: 613A
KMB / CTB: 106, 106P, 118, 606, 606X, 907D, N118
CHEUNG LEE STREET
KUT SHING STREET
CHAI WAN ROAD
GMB: 20, 20M, 61
CTB: 8H, 8X, 49X, 81A, 82, 82S, 682, 682A, 682B, 780, 976A, A12, N8X, NA12
KMB: 613A
KMB / CTB: 118, N118, 907D
CTB: 81, 81A, 780P
CTB: 8, 81
KMB / CTB: 106, 106P, 118, 606, 606X, 907D, N118
CTB: 8, 8H, 8P, 8X, 49X, 82, 82S, 82X, 85P, 88X, 314, 682, 682A, 682B, 694, 694S, 780, 976A, 988, A12, N8, N8P, N8X, NA12
KMB: 613A
GMB: 20, 20M
GMB: 48M
CHAI WAN ROAD
KMB / CTB: 106, 106P 118, 606, N118
CTB: 8H, 8X, 81A, 82, 82S, 314, 780, N8, N8X, A12, NA12
CTB: 81, 81A, 780P
WAN TSUI ROAD
GMB: 20, 20M, 61, 66
CTB: 8, 81
CTB: 8, 85P, 314, 780
KMB / CTB: 106, 106P, 118, 606, 606X, N118
CTB: 8H, 8X, 49X, 82, 82S, 314, 682, 682A, 682B, 694, 694S, 780, 780P, N8X, A12, NA12
GMB: 66
GMB: 20, 20M, 44M, 47E, 47M, 47S
GMB: 47M, 47S
CTB: 8H, 8P, 8X, 82, 82S, 82X, 88X, 789, N8, N8P, N8X, X8
GMB: 20, 20M, 44M, 47E, 47M, 47S, 61
GMB: 44M, 47M
KMB / CTB: 106, 106P, 118, 606, 606X, 907D, N118
KMB: 613A
CTB: 8, 8H, 8P, 8X, 49X, 82, 82S, 82X, 85P, 88X, 314, 682, 682A, 682B, 694, 694S, 780, 976A, 988, A12, N8, N8P, N8X, NA12
KMB / CTB: 106, 106P, 118, 606, 606X, 907D, N118
KMB: 613A
CTB: 682, 682A, 682B, 682P, 694, 694S, 976A, 988, A12, NA12
500m
北 N
LEGEND :
KMB: 1 - Franchised Bus Stop
GMB: 3 - Green Minibus Stop

Project Title

SECTION 16 PLANNING APPLICATION IN SUPPORT OF PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12 AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG

J7408

Figure Title

PUBLIC TRANSPORT FACILITIES IN THE VICINITY OF THE SUBJECT SITE

Figure No. 2.13
Revision A

| Designed by | Drawn by | Checked by |
|---|---|---|
| L K W | S C Y | K C |

Scale in A3 1 : 5,000
Date 21 AUG 2025

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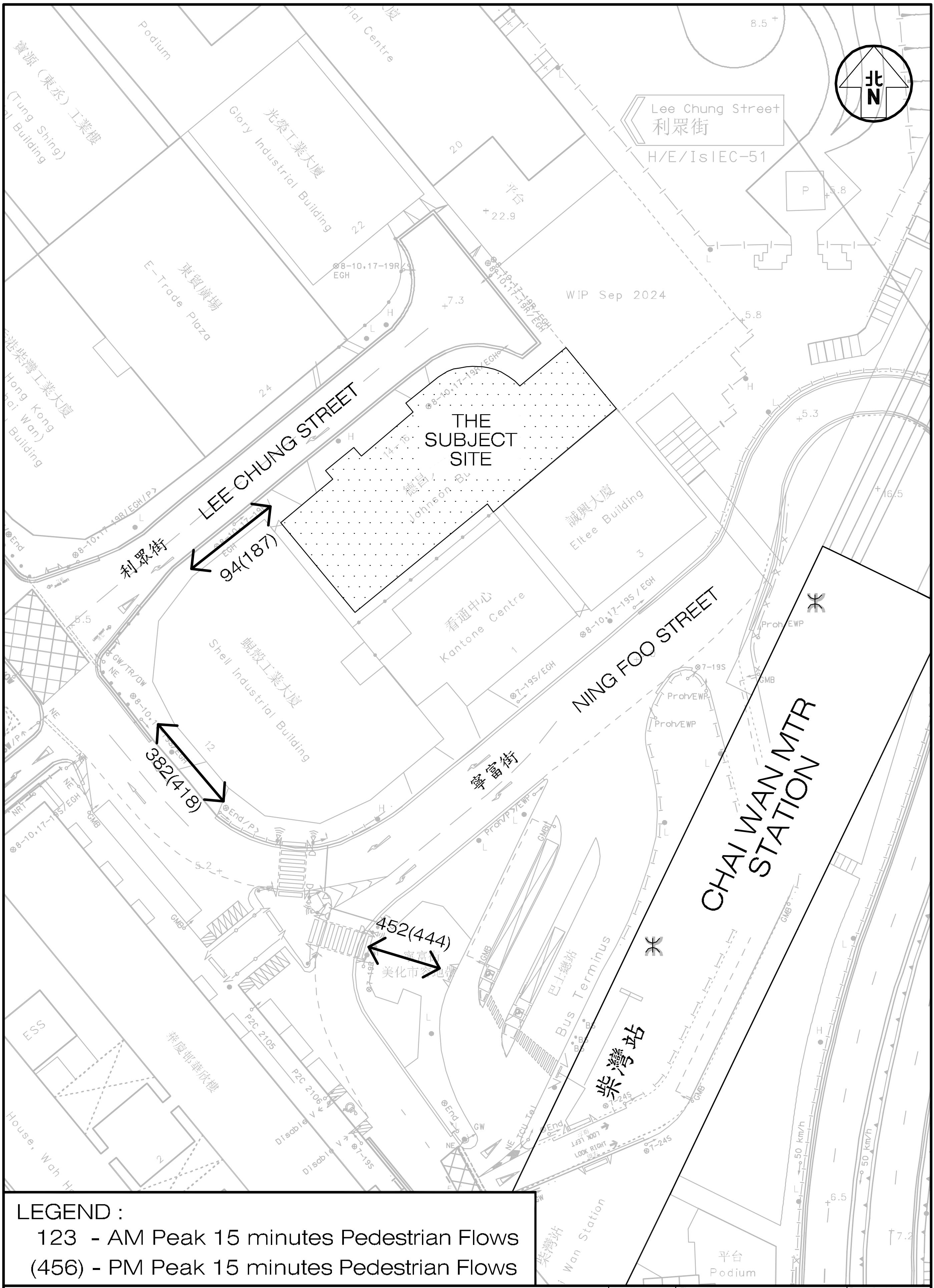

北
N
Lee Chung Street
利眾街
H/E/IsIEC-51
THE SUBJECT SITE
LEE CHUNG STREET
利眾街
94(187)
382(418)
NING FOO STREET
寧富街
452(444)
CHAI WAN MTR STATION
柴灣站
Bus Terminus
巴士總站
Glory Industrial Building
光榮工業大廈
E-Trade Plaza
東貿廣場
Shell Industrial Building
蜆殼工業大廈
Kantone Centre
看通中心
Eltee Building
誠興大廈
Johnson Building
WIP Sep 2024
(Tung Shing) Building
Podium
平台

LEGEND :

123 - AM Peak 15 minutes Pedestrian Flows

(456) - PM Peak 15 minutes Pedestrian Flows

| | | | | | | |
|---|---|---|---|---|---|---|
| Project Title | SECTION 16 PLANNING APPLICATION IN SUPPORT OF PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12 AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG | Job No.<br>J7408 | Figure No.<br>2.14 | | | Scale in A4<br>1 : 750 |
| | | Designed by<br>L K W | Drawn by<br>S C Y | Checked by<br>K C | Revision<br>A | Date<br>26 NOV 2025 |
| Figure Title | YEAR 2025 EXISTING PEAK 15 MINUTES PEDESTRIAN FLOWS | CKM Asia Limited<br>Traffic and Transportation Planning Consultants<br>21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong<br>Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk | | | | |

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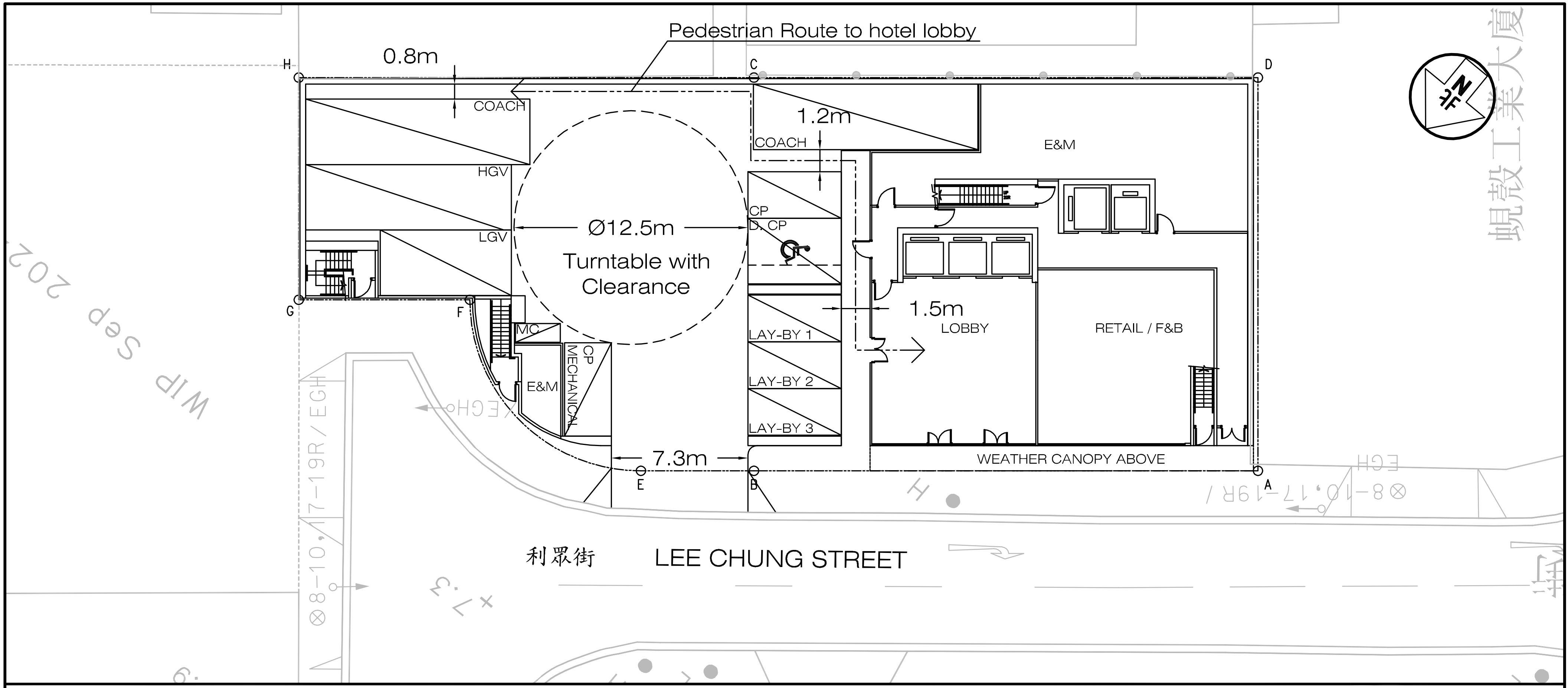
Pedestrian Route to hotel lobby
0.8m
H
C
D
COACH
1.2m
COACH
E&M
HGV
CP
D. CP
Ø12.5m
Turntable with Clearance
LGV
1.5m
LOBBY
RETAIL / F&B
G
F
MC
E&M
CP MECHANICAL
LAY-BY 1
LAY-BY 2
LAY-BY 3
7.3m
WEATHER CANOPY ABOVE
E
B
A
EGH
⊗8-10,17-19R / EGH
H
利眾街
LEE CHUNG STREET
蜆殼工業大廈
N
北

LEGEND :

COACH — Single Deck Tour Bus Layby @12.0m(L) X 3.5m(W) X Min. 3.8m(H)

HGV — Heavy Goods Vehicle Loading / Unloading Bay @11.0m(L) X 3.5m(W) X Min.4.7m(H)

LGV — Light Goods Vehicle Loading / Unloading Bay @7.0m(L) X 3.5m(W) X Min. 3.6m(H)

D. CP — Accessible Car Parking Space @5.0m(L) X 3.5m(W) X Min. 2.4m(H)

MC — Motorcycle Parking Space @2.4m(L) X 1.0m(W) X Min. 2.4m(H)

CP MECHANICAL — Double Deck Parking Rack @5.0m(L) X 2.5m(W) X Min. 4.7m(H)

LAY-BY 1 — Taxi and Private Car Layby @5.0m(L) X 2.5m(W) X Min. 2.4(H)

CP — Car Parking Space @5.0m(L) X 2.5m(W) X Min. 2.4(H)

Project Title
SECTION 16 PLANNING APPLICATION IN SUPPORT OF PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12 AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG
J7408

Figure Title
PROPOSED GROUND FLOOR PLAN

Figure No. 3.1
Revision C
Designed by L K W
Drawn by S C Y
Checked by K C
Scale in A4 1 : 300
Date 26 NOV 2025

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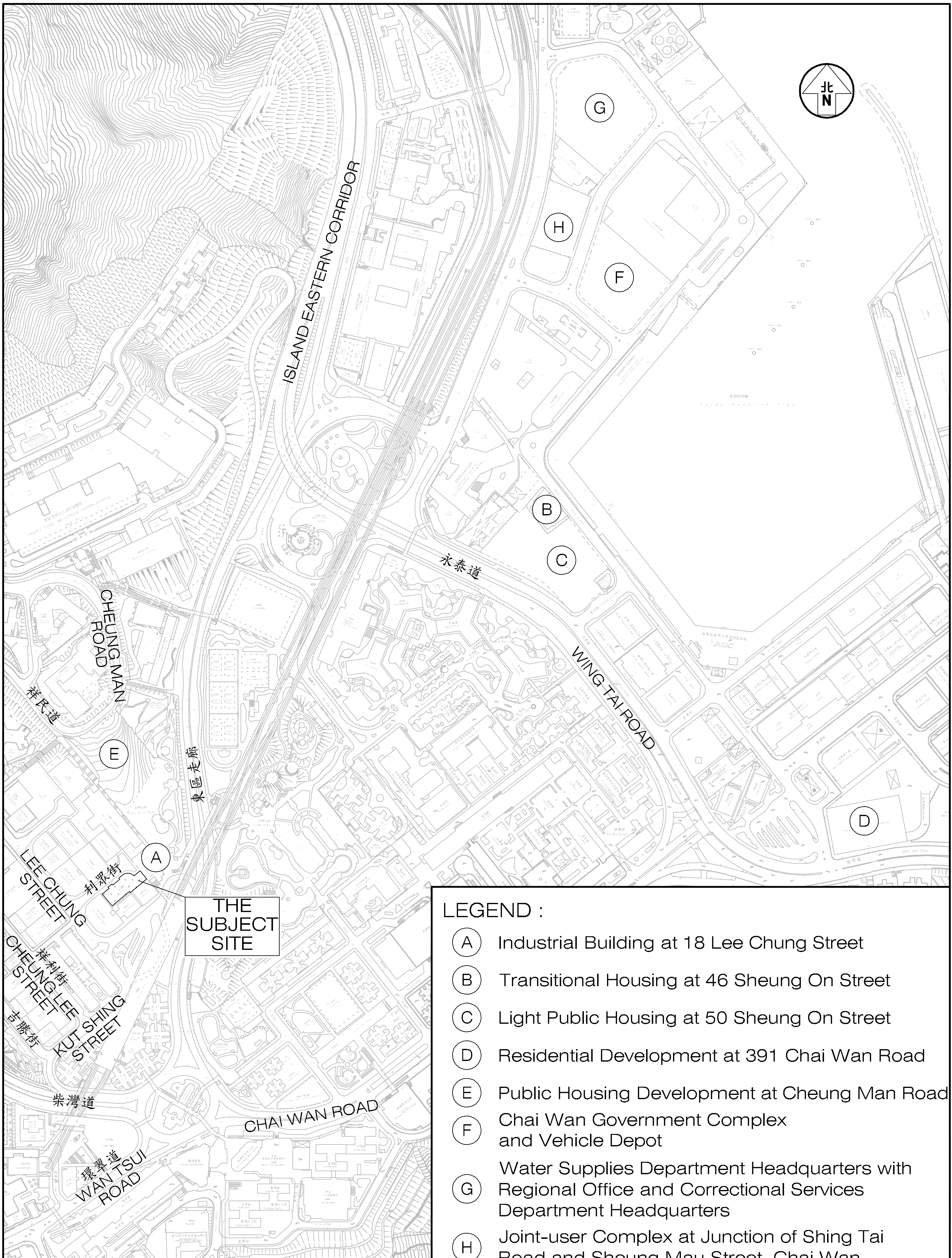
北
N
G
H
F
B
C
D
E
A
ISLAND EASTERN CORRIDOR
永泰道
WING TAI ROAD
CHEUNG MAN ROAD
祥民道
東區走廊
LEE CHUNG STREET
利眾街
THE SUBJECT SITE
祥利街
CHEUNG LEE STREET
吉勝街
KUT SHING STREET
柴灣道
CHAI WAN ROAD
環翠道
WAN TSUI ROAD

LEGEND :

| | |
|---|---|
| Ⓐ | Industrial Building at 18 Lee Chung Street |
| Ⓑ | Transitional Housing at 46 Sheung On Street |
| Ⓒ | Light Public Housing at 50 Sheung On Street |
| Ⓓ | Residential Development at 391 Chai Wan Road |
| Ⓔ | Public Housing Development at Cheung Man Road |
| Ⓕ | Chai Wan Government Complex and Vehicle Depot |
| Ⓖ | Water Supplies Department Headquarters with Regional Office and Correctional Services Department Headquarters |
| Ⓗ | Joint-user Complex at Junction of Shing Tai Road and Sheung Mau Street, Chai Wan |

Project Title

SECTION 16 PLANNING APPLICATION IN SUPPORT OF PROPOSED MINOR RELAXATION OF
PLOT RATIO RESTRICTION FOR PROPOSED HOTEL USE AT CHAI WAN INLAND
LOTS 12 AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG

| Job No. | Figure No. | | Scale in A3 |
|---|---|---|---|
| J7408 | 4.1 | | 1 : 4,000 |
| Designed by | Drawn by | Checked by | Revision | Date |
| L K W | S C Y | K C | A | 26 NOV 2025 |

Figure Title

ADDITIONAL PLANNED / COMMITTED DEVELOPMENTS NEAR THE SUBJECT SITE

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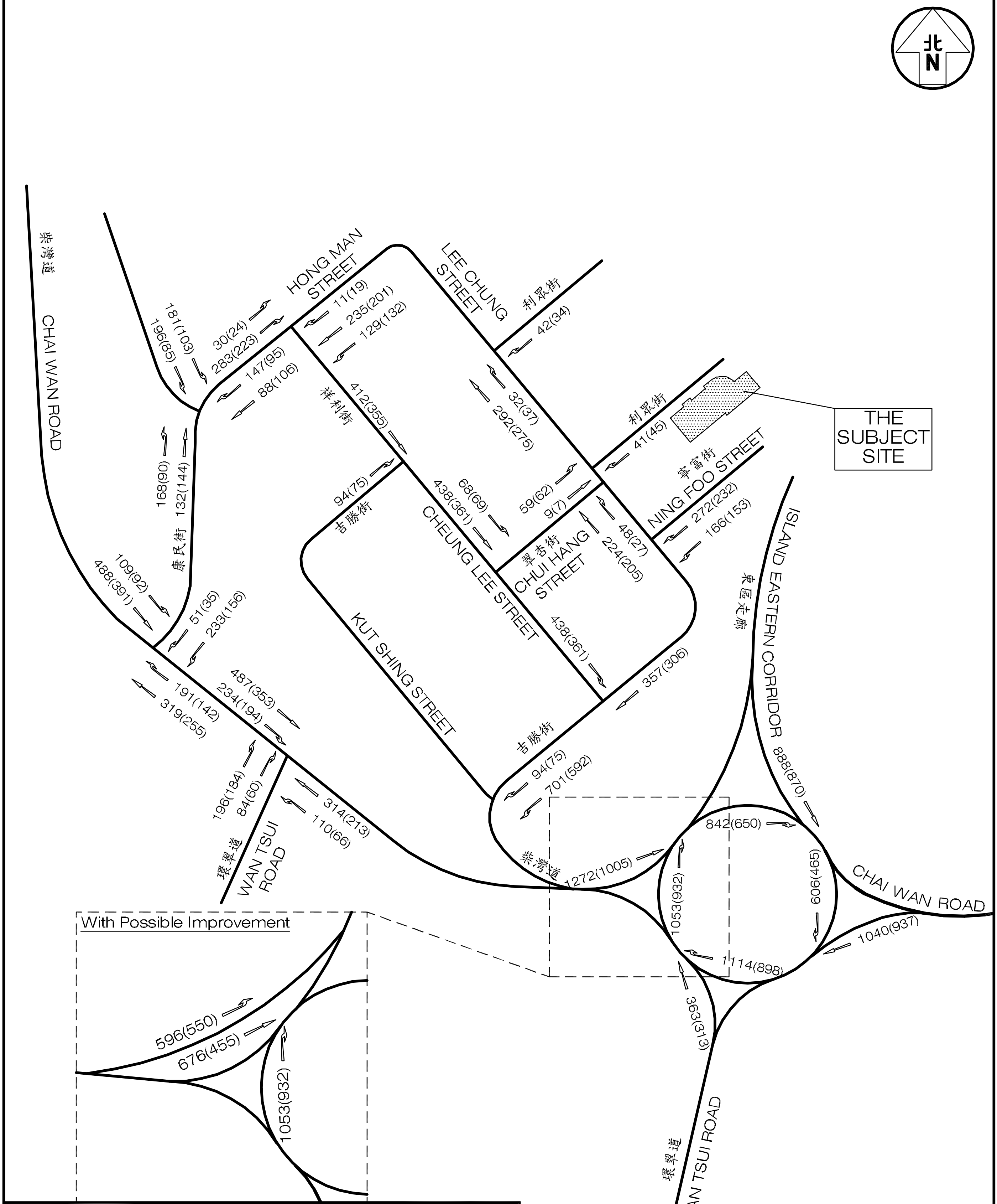
北
N
柴灣道
CHAI WAN ROAD
HONG MAN STREET
LEE CHUNG STREET
利眾街
THE SUBJECT SITE
寧富街
NING FOO STREET
ISLAND EASTERN CORRIDOR
東區走廊
CHAI WAN ROAD
祥利街
CHEUNG LEE STREET
吉勝街
KUT SHING STREET
翠杏街
CHUI HANG STREET
康民街
環翠道
WAN TSUI ROAD
181(103)
196(85)
30(24)
283(223)
147(95)
88(106)
11(19)
235(201)
129(132)
42(34)
32(37)
292(275)
412(355)
41(45)
59(62)
9(7)
68(69)
438(361)
94(75)
48(27)
224(205)
272(232)
166(153)
168(90)
132(144)
109(92)
488(391)
51(35)
233(156)
438(361)
357(306)
487(353)
234(194)
191(142)
319(255)
196(184)
84(60)
314(213)
110(66)
94(75)
701(592)
888(870)
842(650)
1272(1005)
1053(932)
606(465)
1040(937)
1114(898)
363(313)
With Possible Improvement
596(550)
676(455)
1053(932)

LEGEND :

123 - AM peak hour traffic flow, pcu / hr

(456) - PM peak hour traffic flow, pcu / hr

SECTION 16 PLANNING APPLICATION IN SUPPORT OF
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12
AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG

| Job No. | Figure No. | | | Scale in A4 |
|---|---|---|---|---|
| J7408 | 4.2 | | | N.T.S. |
| Designed by | Drawn by | Checked by | Revision | Date |
| L K W | S C Y | K C | C | 27 NOV 2025 |

## 2033 PEAK HOUR TRAFFIC FLOWS WITHOUT THE PROPOSED HOTEL

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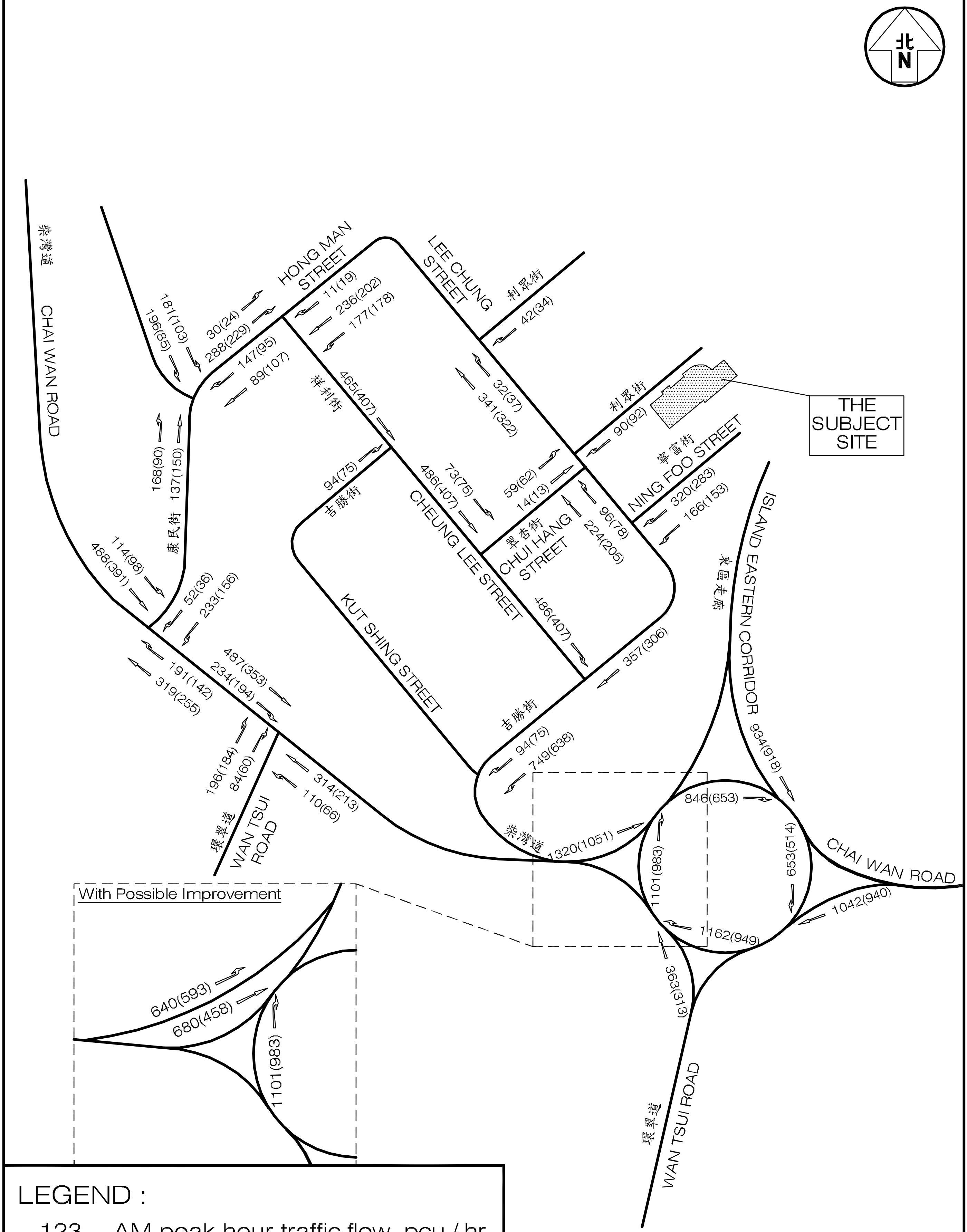
北
N
柴灣道
CHAI WAN ROAD
HONG MAN STREET
LEE CHUNG STREET
利眾街
42(34)
11(19)
236(202)
177(178)
30(24)
288(229)
181(103)
196(85)
147(95)
89(107)
祥利街
465(407)
32(37)
341(322)
利眾街
90(92)
THE SUBJECT SITE
寧富街
NING FOO STREET
320(283)
166(153)
168(90)
137(150)
康民街
94(75)
吉勝街
486(407)
73(75)
59(62)
14(13)
翠杏街
CHUI HANG STREET
96(78)
224(205)
CHEUNG LEE STREET
ISLAND EASTERN CORRIDOR
東區走廊
114(98)
488(391)
52(36)
233(156)
KUT SHING STREET
486(407)
357(306)
191(142)
319(255)
487(353)
234(194)
吉勝街
94(75)
749(638)
934(918)
846(653)
196(184)
84(60)
314(213)
110(66)
環翠道
WAN TSUI ROAD
柴灣道
1320(1051)
1101(983)
653(514)
CHAI WAN ROAD
1042(940)
1162(949)
363(313)
With Possible Improvement
640(593)
680(458)
1101(983)
環翠道
WAN TSUI ROAD

LEGEND :

123 - AM peak hour traffic flow, pcu / hr

(456) - PM peak hour traffic flow, pcu / hr

SECTION 16 PLANNING APPLICATION IN SUPPORT OF PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12 AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG

## 2033 PEAK HOUR TRAFFIC FLOWS WITH THE PROPOSED HOTEL

| Job No. | Figure No. | | | Scale in A4 |
|---|---|---|---|---|
| J7408 | 4.3 | | | N.T.S. |
| Designed by | Drawn by | Checked by | Revision | Date |
| L K W | S C Y | K C | C | 27 NOV 2025 |

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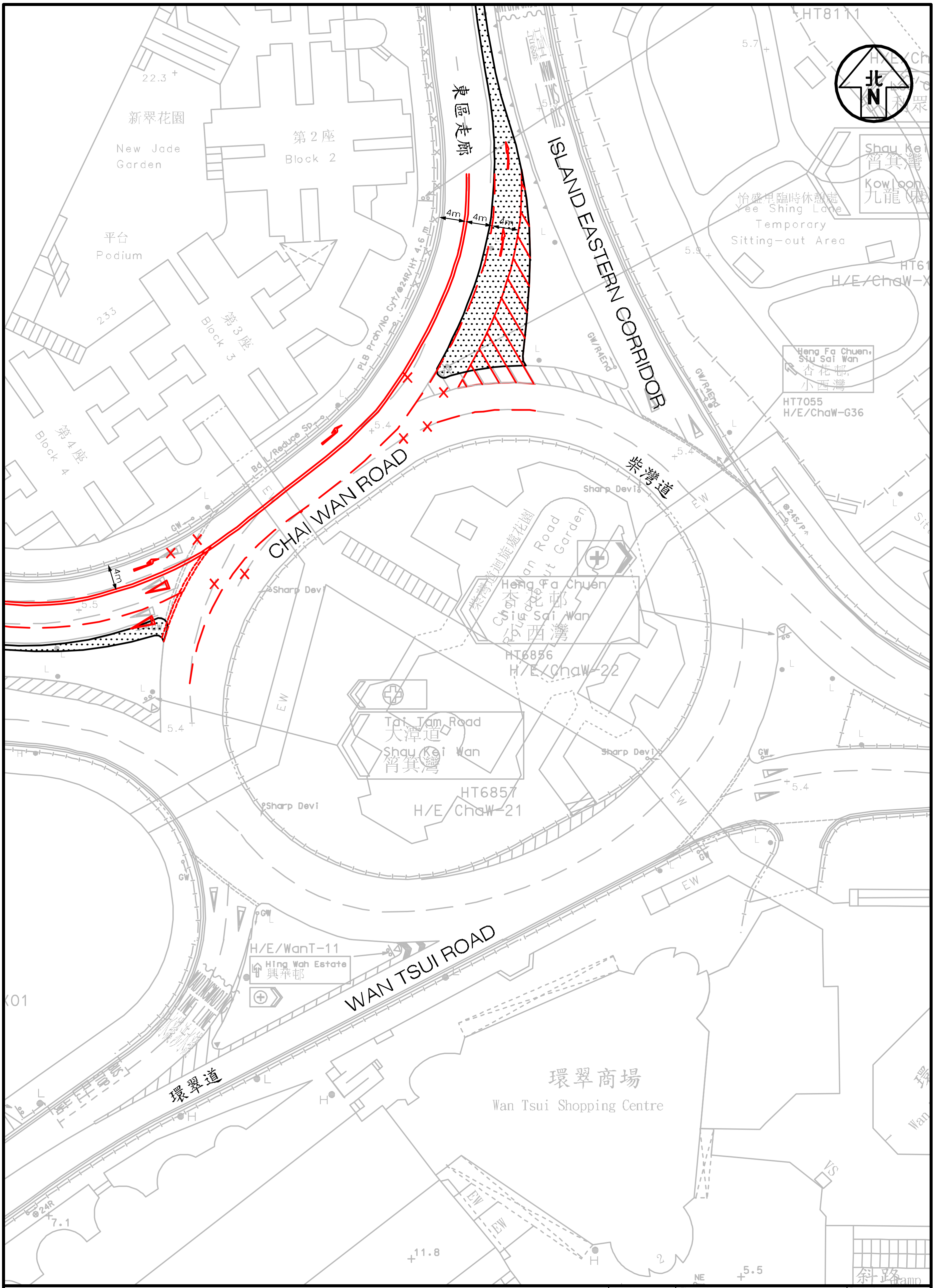
T:\JOB\J7400-J7449\J7408\2025 11\Fig 4.2 - 4.3 RevC.dwg


北
N
ISLAND EASTERN CORRIDOR
東區走廊
CHAI WAN ROAD
柴灣道
WAN TSUI ROAD
環翠道
4m
4m
4m
4m
新翠花園
New Jade Garden
第 2 座
Block 2
第 3 座
Block 3
第 4 座
Block 4
平台
Podium
22.3
23.3
5.7
5.9
5.4
5.5
7.1
11.8
5.5
HT8111
HT7055
H/E/ChaW-G36
HT6856
H/E/ChaW-22
HT6857
H/E/ChaW-21
H/E/ChaW-X
H/E/WanT-11
怡盛里臨時休憩處
Yee Shing Lane Temporary Sitting-out Area
Shau Kei 筲箕灣
Kowloon 九龍
Heng Fa Chuen, Siu Sai Wan 杏花邨, 小西灣
Heng Fa Chuen 杏花邨
Siu Sai Wan 小西灣
Tai Tam Road 大潭道
Shau Kei Wan 筲箕灣
Hing Wah Estate 興華邨
柴灣道迴旋處花園
Chai Wan Road Roundabout Garden
環翠商場
Wan Tsui Shopping Centre
Sharp Devi
GW/R4End
PLB Prohi/No Cyt/@24R/HT 4.6 m
Bd / Reduce Sp
@24S/PA
@24R
EW
GW
斜路
Ramp

| Project Title | SECTION 16 PLANNING APPLICATION IN SUPPORT OF PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12 AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG |
|---|---|

| Job No. | Figure No. | | | Scale in A4 |
|---|---|---|---|---|
| J7408 | 4.4 | | | 1 : 750 |
| Designed by | Drawn by | Checked by | Revision | Date |
| L K W | S C Y | K C | A | 21 AUG 2025 |

Figure Title

**POSSIBLE IMPROVEMENT AT JUNCTION CHAI WAN ROAD ROUNDABOUT**

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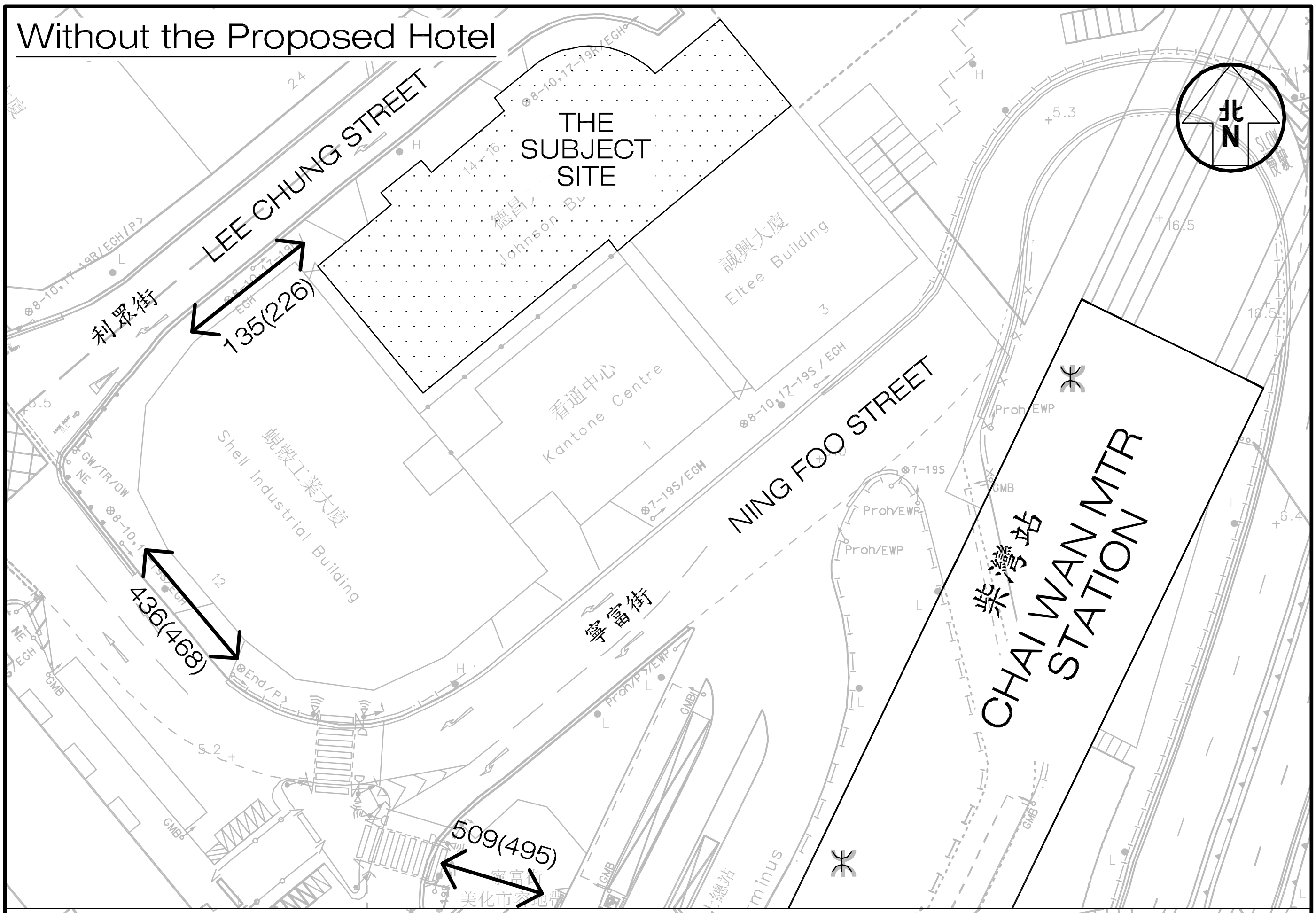
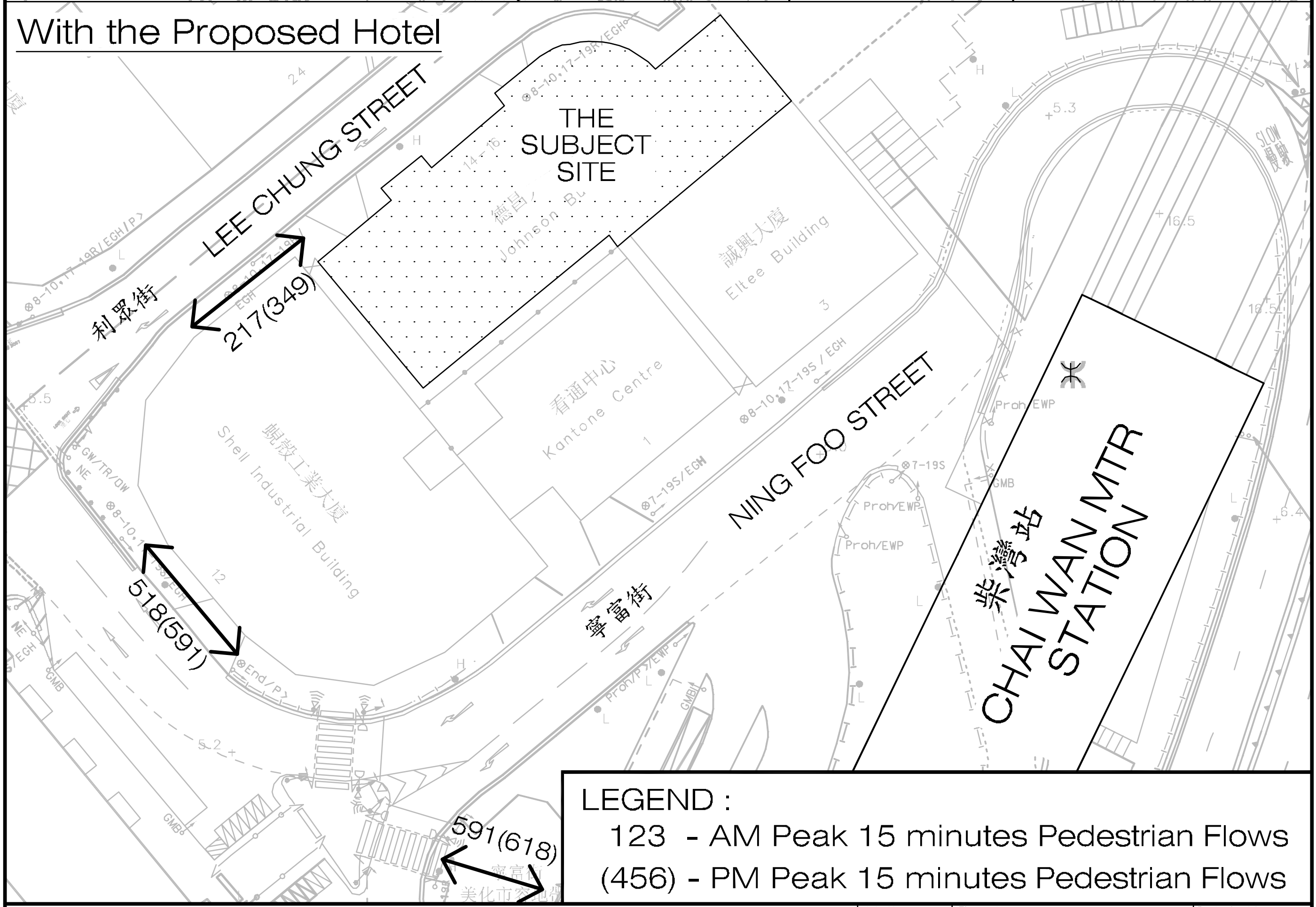
T:\JOB\J7400-J7449\J7408\2025 11\Fig 4.4 RevA.dwg

## Without the Proposed Hotel


LEE CHUNG STREET
利眾街
THE SUBJECT SITE
135(226)
436(468)
509(495)
NING FOO STREET
寧富街
看通中心 Kantone Centre
蜆殼工業大廈 Shell Industrial Building
誠興大廈 Eltee Building
柴灣站
CHAI WAN MTR STATION
北
N

## With the Proposed Hotel


LEE CHUNG STREET
利眾街
THE SUBJECT SITE
217(349)
518(591)
591(618)
NING FOO STREET
寧富街
看通中心 Kantone Centre
蜆殼工業大廈 Shell Industrial Building
誠興大廈 Eltee Building
柴灣站
CHAI WAN MTR STATION

LEGEND :

123 - AM Peak 15 minutes Pedestrian Flows

(456) - PM Peak 15 minutes Pedestrian Flows

| | | | | | |
|---|---|---|---|---|---|
| Project Title | SECTION 16 PLANNING APPLICATION IN SUPPORT OF PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12 AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG | Job No.<br>J7408 | Figure No.<br>5.1 | | Scale in A4<br>1 : 750 |
| | | Designed by<br>L K W | Drawn by<br>S C Y | Checked by<br>K C | Revision<br>A |
| Figure Title | 2033 PEAK 15 MINUTES PEDESTRIAN FLOWS WITHOUT AND WITH THE PROPOSED HOTEL | | | | Date<br>26 NOV 2025 |

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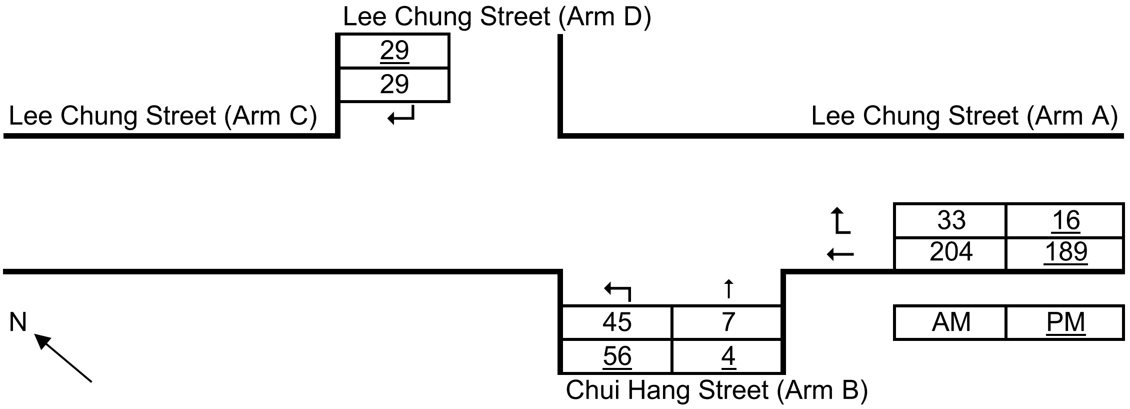
T:\JOB\J7400-J7449\J7408\2025 11\Fig 5.1 RevA.dwg

# Appendix A – Calculation

# Priority Junction Analysis

| | | | | | |
|---|---|---|---|---|---|
| Junction: | Lee Chung Street / Chui Hang Street | | | | |
| Design Year: | 2025 | Job Number: | J7408 | Date: | 26 Nov 2025 |
| Scenario: | Existing Condition | | | Page | 1 |


Lee Chung Street (Arm D)
29
29
Lee Chung Street (Arm C)
Lee Chung Street (Arm A)
33
16
204
189
AM
PM
45
7
56
4
N
Chui Hang Street (Arm B)

Input Parameters for analysis:

q-A-B, etc = the design flow of movement AB, etc
Q-A-B, etc = the capacity of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

| Geometry : | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | W | 20.0 | V-CB | 0.0 | V-AD | 165.0 | w-BA | 0.0 |
| | W-CR | 0.0 | V-BC | 32.0 | V-DA | 40.0 | w-BC | 5.0 |
| | W-CB | 0.0 | V-BA | 18.0 | V-DC | 58.0 | w-DA | 0.0 |
| | W-AD | 5.0 | | | | | w-DC | 4.7 |

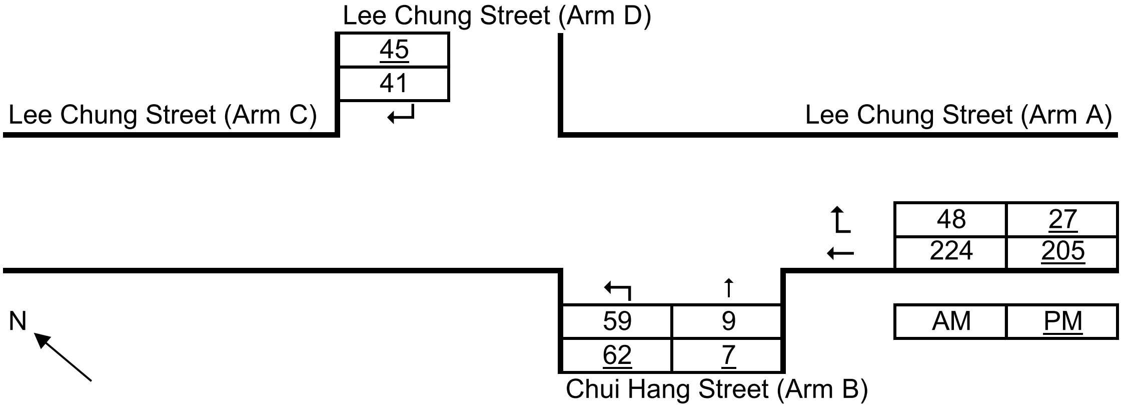
Analysis :

| Traffic Flows, pcu/hr | AM | PM | Capacity, pcu/hr | AM | PM |
|---|---|---|---|---|---|
| q-B-ACD | 57 | 66 | Q-B-ACD | 799 | 794 |
| q-A-B | 0 | 0 | Q-A-B | 0 | 0 |
| q-A-C | 225 | 208 | Q-A-C | 0 | 0 |
| q-A-D | 36 | 18 | Q-A-D | 0 | 0 |
| q-AB-CD | 65 | 33 | Q-AB-CD | 842 | 839 |
| q-AB-C | 253 | 259 | Q-AB-C | 0 | 0 |
| q-D-ABC | 32 | 32 | Q-D-ABC | 639 | 635 |
| q-CD-AB | 0 | 0 | Q-CD-AB | 0 | 0 |

| Ratio-of-flow to Capacity | AM | PM |
|---|---|---|
| B-ACD | 0.072 | 0.083 |
| AB-CD | 0.078 | 0.039 |
| D-ABC | 0.050 | 0.050 |

# Priority Junction Analysis

| | | | | | |
|---|---|---|---|---|---|
| Junction: | Lee Chung Street / Chui Hang Street | | | | |
| Design Year: | 2033 | Job Number: | J7408 | Date: | 26 Nov 2025 |
| Scenario: | Year 2033 without the Proposed Hotel | | | Page | 2 |


Lee Chung Street (Arm D)
45
41
Lee Chung Street (Arm C)
Lee Chung Street (Arm A)
48
27
224
205
59
9
62
7
AM
PM
N
Chui Hang Street (Arm B)

Input Parameters for analysis:

q-A-B, etc = the design flow of movement AB, etc
Q-A-B, etc = the capacity of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

| Geometry : | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | W | 20.0 | V-CB | 0.0 | V-AD | 165.0 | w-BA | 0.0 |
| | W-CR | 0.0 | V-BC | 32.0 | V-DA | 40.0 | w-BC | 5.0 |
| | W-CB | 0.0 | V-BA | 18.0 | V-DC | 58.0 | w-DA | 0.0 |
| | W-AD | 5.0 | | | | | w-DC | 4.7 |

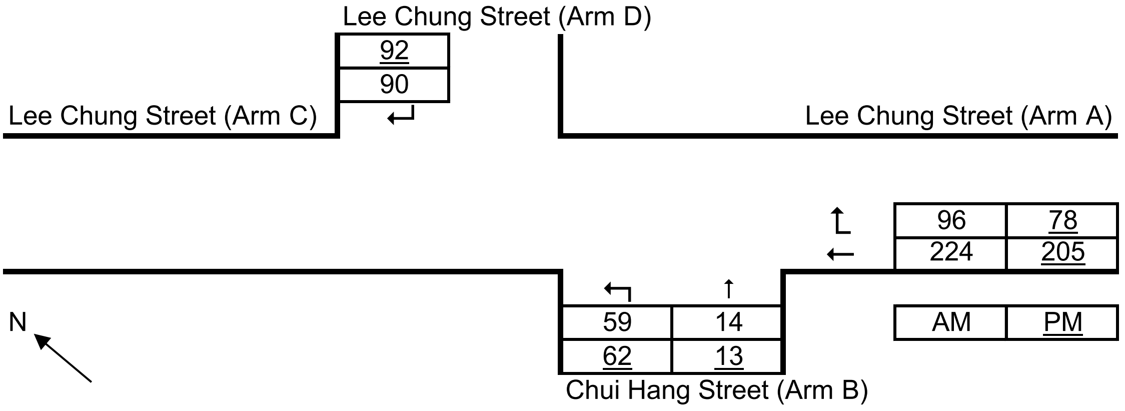
Analysis :

| Traffic Flows, pcu/hr | AM | PM | Capacity, pcu/hr | AM | PM |
|---|---|---|---|---|---|
| q-B-ACD | 80 | 80 | Q-B-ACD | 805 | 799 |
| q-A-B | 0 | 0 | Q-A-B | 0 | 0 |
| q-A-C | 247 | 226 | Q-A-C | 0 | 0 |
| q-A-D | 53 | 30 | Q-A-D | 0 | 0 |
| q-AB-CD | 99 | 58 | Q-AB-CD | 869 | 857 |
| q-AB-C | 281 | 278 | Q-AB-C | 0 | 0 |
| q-D-ABC | 45 | 50 | Q-D-ABC | 646 | 640 |
| q-CD-AB | 0 | 0 | Q-CD-AB | 0 | 0 |

| Ratio-of-flow to Capacity | AM | PM |
|---|---|---|
| B-ACD | 0.100 | 0.101 |
| AB-CD | 0.114 | 0.067 |
| D-ABC | 0.070 | 0.077 |

# Priority Junction Analysis

Junction: Lee Chung Street / Chui Hang Street
Design Year: 2033 Job Number: J7408 Date: 26 Nov 2025
Scenario: Year 2033 with the Proposed Hotel Page 3



Lee Chung Street (Arm D)
92
90
Lee Chung Street (Arm C)
Lee Chung Street (Arm A)
96
78
224
205
59
14
62
13
AM
PM
N
Chui Hang Street (Arm B)

Input Parameters for analysis:

q-A-B, etc = the design flow of movement AB, etc
Q-A-B, etc = the capacity of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Geometry : | W | 20.0 | V-CB | 0.0 | V-AD | 165.0 | w-BA | 0.0 |
| | W-CR | 0.0 | V-BC | 32.0 | V-DA | 40.0 | w-BC | 5.0 |
| | W-CB | 0.0 | V-BA | 18.0 | V-DC | 58.0 | w-DA | 0.0 |
| | W-AD | 5.0 | | | | | w-DC | 4.7 |

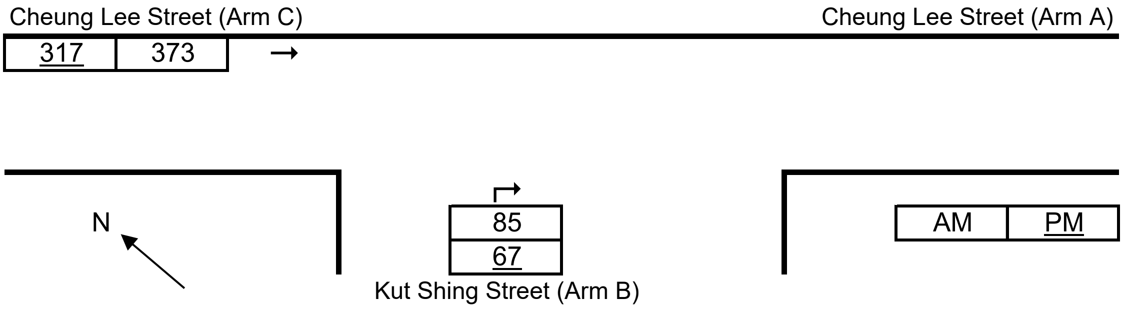
Analysis :

| Traffic Flows, pcu/hr | AM | PM | Capacity, pcu/hr | AM | PM |
|---|---|---|---|---|---|
| q-B-ACD | 86 | 87 | Q-B-ACD | 812 | 807 |
| q-A-B | 0 | 0 | Q-A-B | 0 | 0 |
| q-A-C | 247 | 226 | Q-A-C | 0 | 0 |
| q-A-D | 106 | 86 | Q-A-D | 0 | 0 |
| q-AB-CD | 191 | 154 | Q-AB-CD | 869 | 857 |
| q-AB-C | 247 | 244 | Q-AB-C | 0 | 0 |
| q-D-ABC | 99 | 101 | Q-D-ABC | 658 | 652 |
| q-CD-AB | 0 | 0 | Q-CD-AB | 0 | 0 |

| Ratio-of-flow to Capacity | AM | PM |
|---|---|---|
| B-ACD | 0.106 | 0.108 |
| AB-CD | 0.220 | 0.180 |
| D-ABC | 0.151 | 0.155 |

# Priority Junction Analysis

| | | | | | |
|---|---|---|---|---|---|
| Junction: | Cheung Lee Street / Kut Shing Street (West Junction) | | | | |
| Design Year: | 2025 | Job Number: | J7408 | Date: | 26 Nov 2025 |
| Scenario: | Existing Condition | | | Page | 4 |



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]
Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]
Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]
E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]
F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

| Input | | Input | | Input | | Calculated | |
|---|---|---|---|---|---|---|---|
| W | 7.30 | V-rBA | 25 | w-BA | 7.40 | D | 1.1441 |
| W-CR | 0.00 | V-lBA | 25 | w-BC | 0.00 | E | 0.5860 |
| | | V-rBC | 0 | w-CB | 0.00 | F | 0.5860 |
| | | V-rCB | 0 | | | Y | 0.7482 |

Analysis :

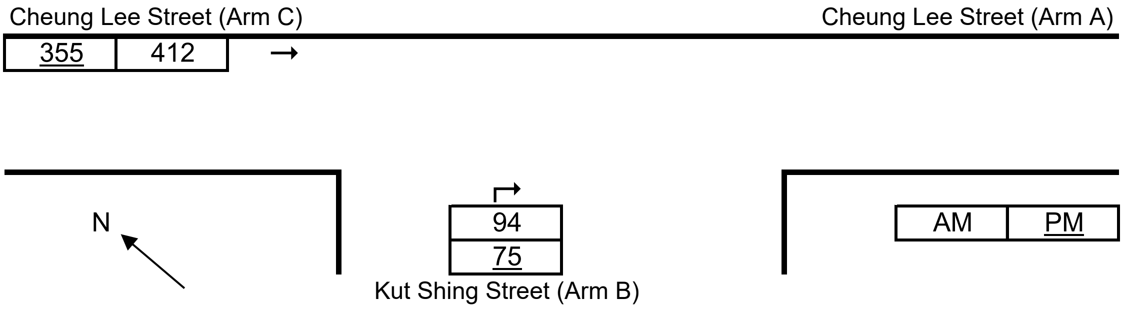
| Traffic Flows, pcu/hr | AM | PM |
|---|---|---|
| q-CA | 373 | 317 |
| q-CB | 0 | 0 |
| q-AB | 0 | 0 |
| q-AC | 0 | 0 |
| q-BA | 85 | 67 |
| q-BC | 0 | 0 |
| f | 0 | 0 |

| Capacity, pcu/hr | AM | PM |
|---|---|---|
| Q-BA | 644 | 655 |
| Q-CB | 437 | 437 |

| Ratio-of-flow to Capacity | AM | PM |
|---|---|---|
| B-A | 0.132 | 0.102 |
| C-B | 0.000 | 0.000 |

# Priority Junction Analysis

Junction: Cheung Lee Street / Kut Shing Street (West Junction)
Design Year: 2033 Job Number: J7408 Date: 26 Nov 2025
Scenario: Year 2033 without the Proposed Hotel Page 5



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]
Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]
Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]
E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]
F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

| Input | | Input | | Input | | Calculated | |
|---|---|---|---|---|---|---|---|
| W | 7.30 | V-rBA | 25 | w-BA | 7.40 | D | 1.1441 |
| W-CR | 0.00 | V-lBA | 25 | w-BC | 0.00 | E | 0.5860 |
| | | V-rBC | 0 | w-CB | 0.00 | F | 0.5860 |
| | | V-rCB | 0 | | | Y | 0.7482 |

Analysis :

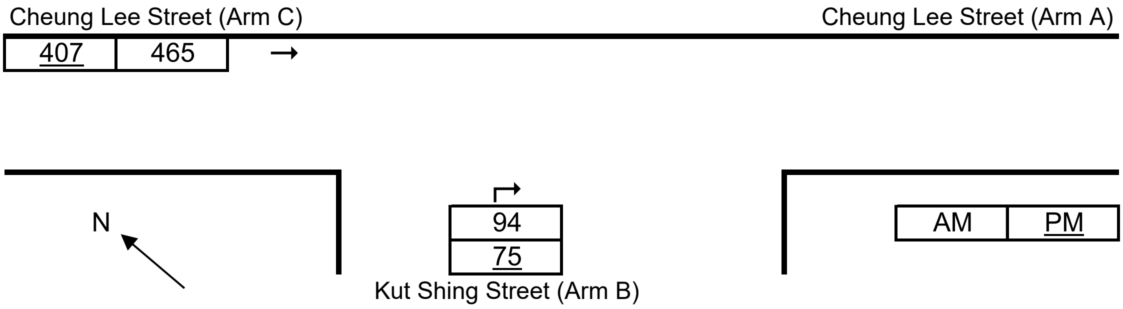
| Traffic Flows, pcu/hr | AM | PM |
|---|---|---|
| q-CA | 412 | 355 |
| q-CB | 0 | 0 |
| q-AB | 0 | 0 |
| q-AC | 0 | 0 |
| q-BA | 94 | 75 |
| q-BC | 0 | 0 |
| f | 0 | 0 |

| Capacity, pcu/hr | AM | PM |
|---|---|---|
| Q-BA | 637 | 648 |
| Q-CB | 437 | 437 |

| Ratio-of-flow to Capacity | AM | PM |
|---|---|---|
| B-A | 0.148 | 0.116 |
| C-B | 0.000 | 0.000 |

# Priority Junction Analysis

|  |  |  |  |  |  |
|---|---|---|---|---|---|
| Junction: | Cheung Lee Street / Kut Shing Street (West Junction) | | | | |
| Design Year: | 2033 | Job Number: | J7408 | Date: | 26 Nov 2025 |
| Scenario: | Year 2033 with the Proposed Hotel | | | Page | 6 |



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]
Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]
Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]
E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]
F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

| Input | | Input | | Input | | Calculated | |
|---|---|---|---|---|---|---|---|
| W | 7.30 | V-rBA | 25 | w-BA | 7.40 | D | 1.1441 |
| W-CR | 0.00 | V-lBA | 25 | w-BC | 0.00 | E | 0.5860 |
| | | V-rBC | 0 | w-CB | 0.00 | F | 0.5860 |
| | | V-rCB | 0 | | | Y | 0.7482 |

Analysis :

| Traffic Flows, pcu/hr | AM | PM | Capacity, pcu/hr | AM | PM |
|---|---|---|---|---|---|
| q-CA | 465 | 407 | Q-BA | 626 | 638 |
| q-CB | 0 | 0 | Q-CB | 437 | 437 |
| q-AB | 0 | 0 | | | |
| q-AC | 0 | 0 | | | |
| q-BA | 94 | 75 | | | |
| q-BC | 0 | 0 | | | |
| f | 0 | 0 | | | |

| Ratio-of-flow to Capacity | AM | PM |
|---|---|---|
| B-A | 0.150 | 0.118 |
| C-B | 0.000 | 0.000 |

# Signal Junction Analysis

Junction: Cheung Lee Street / Kut Shing Street (East Junction) Job Number: J7408

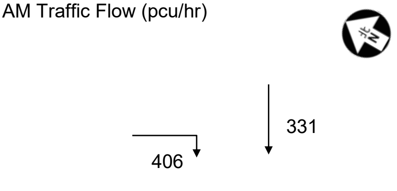
Scenario: Existing Condition P. 7

Design Year: 2025 Designed By: AYT Checked By: LKW Date: 26 Nov 2025

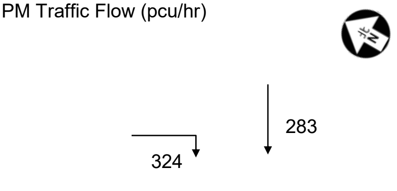
| Approach | | Phase | Stage | Width (m) | Radius (m) | % Up-hill Gradient | AM Peak Turning % | AM Peak Sat. Flow (pcu/hr) | AM Peak Flow (pcu/hr) | AM Peak y value | AM Peak Critical y | PM Peak Turning % | PM Peak Sat. Flow (pcu/hr) | PM Peak Flow (pcu/hr) | PM Peak y value | PM Peak Critical y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cheung Lee Street SB | RT | A1 | 2 | 3.90 | 12.5 | | 100 | 1790 | 207 | 0.116 | | 100 | 1790 | 165 | 0.092 | 0.092 |
| Cheung Lee Street SB | RT | A2 | 2 | 3.90 | 9.0 | | 100 | 1719 | 199 | 0.116 | 0.116 | 100 | 1719 | 159 | 0.092 | |
| | | | | | | | | | | | | | | | | |
| Kut Shing Street WB | SA | B1 | 1 | 4.20 | | | | 2035 | 166 | 0.082 | 0.082 | | 2035 | 142 | 0.070 | 0.070 |
| Kut Shing Street WB | SA | B2 | 1 | 4.20 | | | | 2035 | 165 | 0.081 | | | 2035 | 141 | 0.069 | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| pedestrian phase | Cp | 1 | | min crossing time = | 8 | sec GM + | 9 | sec FGM = | 17 | sec |
| | Dp | 2 | | min crossing time = | 8 | sec GM + | 8 | sec FGM = | 16 | sec |

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

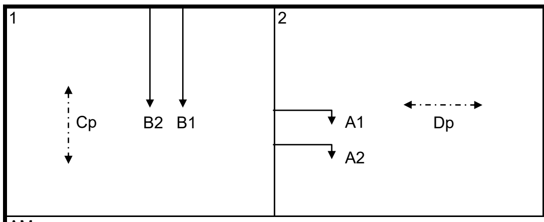


S=1940+100(W–3.25) S=2080+100(W–3.25)

$S_M$=S÷(1+1.5f/r) $S_M$=(S–230)÷(1+1.5f/r)

| | AM Peak | | PM Peak | |
|---|---|---|---|---|
| Group | 1+2 | | 1+2 | |
| Sum y | 0.197 | | 0.162 | |
| L (s) | 8 | | 8 | |
| C (s) | 75 | | 75 | |
| practical y | 0.804 | | 0.804 | |
| R.C. (%) | 307% | | 396% | |

Note:



3 4 5

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|---|---|---|---|---|---|---|---|---|---|---|
| AM | | | | | | | | | | |
| G = | I/G = 5 | G = | I/G = 5 | G = | I/G = | G = | I/G = | G = | I/G = | |
| G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = | |
| PM | | | | | | | | | | |
| G = | I/G = 5 | G = | I/G = 5 | G = | I/G = | G = | I/G = | G = | I/G = | |
| G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = | |

# Signal Junction Analysis

Junction: Cheung Lee Street / Kut Shing Street (East Junction) Job Number: J7408

Scenario: Year 2033 without the Proposed Hotel P. 8

Design Year: 2033 Designed By: AYT Checked By: LKW Date: 26 Nov 2025

| Approach | | Phase | Stage | Width (m) | Radius (m) | % Up-hill Gradient | AM Peak Turning % | AM Peak Sat. Flow (pcu/hr) | AM Peak Flow (pcu/hr) | AM Peak y value | AM Peak Critical y | PM Peak Turning % | PM Peak Sat. Flow (pcu/hr) | PM Peak Flow (pcu/hr) | PM Peak y value | PM Peak Critical y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cheung Lee Street SB | RT | A1 | 2 | 3.90 | 12.5 | | 100 | 1790 | 223 | 0.125 | 0.125 | 100 | 1790 | 184 | 0.103 | 0.103 |
| Cheung Lee Street SB | RT | A2 | 2 | 3.90 | 9.0 | | 100 | 1719 | 215 | 0.125 | | 100 | 1719 | 177 | 0.103 | |
| | | | | | | | | | | | | | | | | |
| Kut Shing Street WB | SA | B1 | 1 | 4.20 | | | | 2035 | 179 | 0.088 | 0.088 | | 2035 | 153 | 0.075 | 0.075 |
| Kut Shing Street WB | SA | B2 | 1 | 4.20 | | | | 2035 | 178 | 0.087 | | | 2035 | 153 | 0.075 | |
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|---|---|---|---|---|---|---|---|---|---|---|---|
| pedestrian phase | Cp | 1 | | min crossing time = | 8 | sec GM + | 9 | sec FGM = | 17 | sec | |
| | Dp | 2 | | min crossing time = | 8 | sec GM + | 8 | sec FGM = | 16 | sec | |
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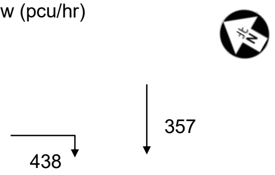
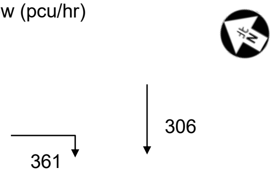
AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



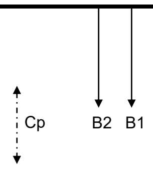
**$S=1940+100(W-3.25)$** **$S=2080+100(W-3.25)$**

**$S_M=S\div(1+1.5f/r)$** **$S_M=(S-230)\div(1+1.5f/r)$**

| | AM Peak | | PM Peak | |
|---|---|---|---|---|
| Group | 1+2 | | 1+2 | |
| Sum y | 0.213 | | 0.178 | |
| L (s) | 8 | | 8 | |
| C (s) | 75 | | 75 | |
| practical y | 0.804 | | 0.804 | |
| R.C. (%) | 278% | | 352% | |

Note:

1



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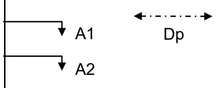

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|---|---|---|---|---|---|---|---|---|---|---|
| AM | | | | | | | | | | |
| | G = | I/G = 5 | G = | I/G = 5 | G = | I/G = | G = | I/G = | G = | I/G = |
| | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = |
| PM | | | | | | | | | | |
| | G = | I/G = 5 | G = | I/G = 5 | G = | I/G = | G = | I/G = | G = | I/G = |
| | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = |

# Signal Junction Analysis

Junction: Cheung Lee Street / Kut Shing Street (East Junction) Job Number: J7408

Scenario: Year 2033 with the Proposed Hotel P. 9

Design Year: 2033 Designed By: AYT Checked By: LKW Date: 26 Nov 2025

| Approach | | Phase | Stage | Width (m) | Radius (m) | % Up-hill Gradient | AM Peak | | | | | PM Peak | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Turning % | Sat. Flow (pcu/hr) | Flow (pcu/hr) | y value | Critical y | Turning % | Sat. Flow (pcu/hr) | Flow (pcu/hr) | y value | Critical y |
| Cheung Lee Street SB | RT | A1 | 2 | 3.90 | 12.5 | | 100 | 1790 | 248 | 0.139 | 0.139 | 100 | 1790 | 208 | 0.116 | 0.116 |
| Cheung Lee Street SB | RT | A2 | 2 | 3.90 | 9.0 | | 100 | 1719 | 238 | 0.138 | | 100 | 1719 | 199 | 0.116 | |
| | | | | | | | | | | | | | | | | |
| Kut Shing Street WB | SA | B1 | 1 | 4.20 | | | | 2035 | 179 | 0.088 | 0.088 | | 2035 | 153 | 0.075 | 0.075 |
| Kut Shing Street WB | SA | B2 | 1 | 4.20 | | | | 2035 | 178 | 0.087 | | | 2035 | 153 | 0.075 | |
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|---|---|---|---|---|---|---|---|---|---|---|---|
| pedestrian phase | Cp | 1 | | min crossing time = | 8 | sec GM + | 9 | sec FGM = | 17 | sec | |
| | Dp | 2 | | min crossing time = | 8 | sec GM + | 8 | sec FGM = | 16 | sec | |
| | | | | | | | | | | | |
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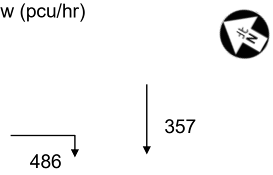
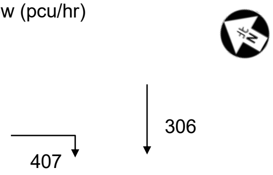
AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

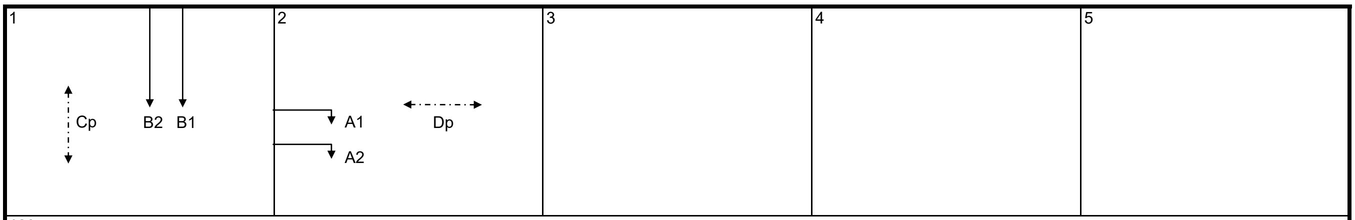


**S=1940+100(W–3.25)** **S=2080+100(W–3.25)**

**$S_M$=S÷(1+1.5f/r)** **$S_M$=(S–230)÷(1+1.5f/r)**

| | AM Peak | | PM Peak | |
|---|---|---|---|---|
| Group | 1+2 | | 1+2 | |
| Sum y | 0.227 | | 0.191 | |
| L (s) | 8 | | 8 | |
| C (s) | 75 | | 75 | |
| practical y | 0.804 | | 0.804 | |
| R.C. (%) | 255% | | 320% | |

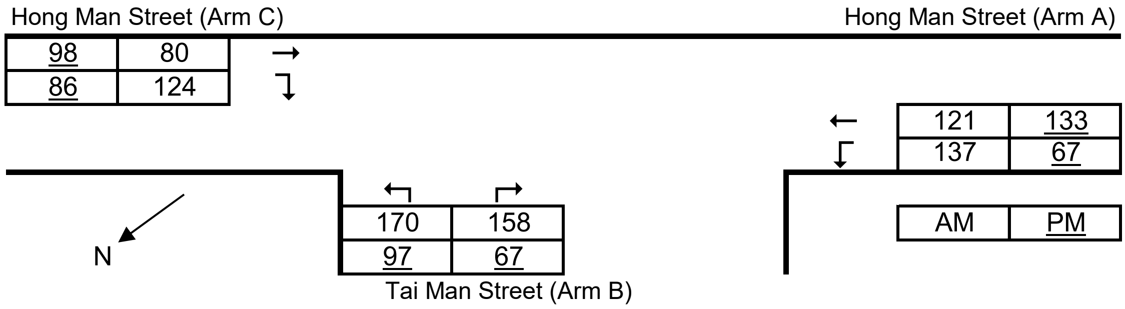
Note:



| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| AM | | | | | | | | | | |
| | G = | I/G = 5 | G = | I/G = 5 | G = | I/G = | G = | I/G = | G = | I/G = |
| | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = |
| PM | | | | | | | | | | |
| | G = | I/G = 5 | G = | I/G = 5 | G = | I/G = | G = | I/G = | G = | I/G = |
| | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = |

# Priority Junction Analysis

| | | | | | |
|---|---|---|---|---|---|
| Junction: | Hong Man Street / Tai Man Street | | | | |
| Design Year: | 2025 | Job Number: | J7408 | Date: | 26 Nov 2025 |
| Scenario: | Existing Condition | | | Page | 10 |



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]
Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]
Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]
E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]
F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

| Input | | Input | | Input | | Calculated | |
|---|---|---|---|---|---|---|---|
| W | 7.70 | V-rBA | 130 | w-BA | 4.80 | D | 1.0443 |
| W-CR | 0.00 | V-lBA | 40 | w-BC | 4.80 | E | 1.1181 |
| | | V-rBC | 130 | w-CB | 3.70 | F | 0.9595 |
| | | V-rCB | 70 | | | Y | 0.7344 |

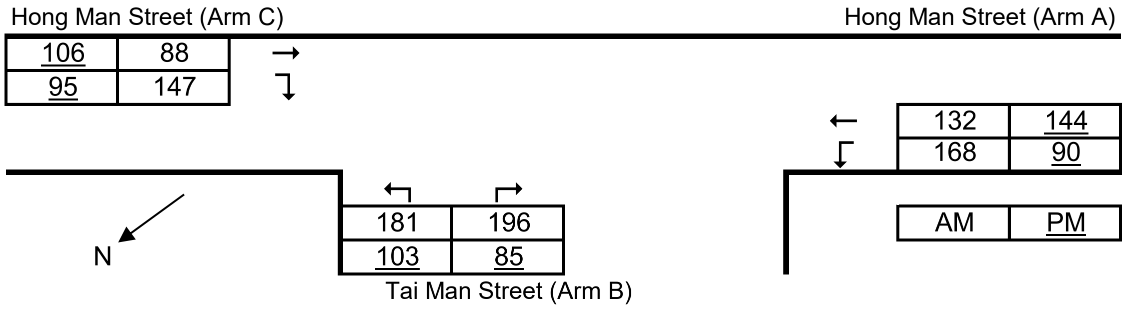
Analysis :

| Traffic Flows, pcu/hr | AM | PM | Capacity, pcu/hr | AM | PM |
|---|---|---|---|---|---|
| q-CA | 80 | 98 | Q-BA | 542 | 559 |
| q-CB | 124 | 86 | Q-BC | 781 | 785 |
| q-AB | 137 | 67 | Q-CB | 649 | 664 |
| q-AC | 121 | 133 | Q-BAC | 644 | 674 |
| q-BA | 158 | 67 | | | |
| q-BC | 170 | 97 | | | |
| f | 0.518 | 0.591 | | | |

| Ratio-of-flow to Capacity | AM | PM | |
|---|---|---|---|
| B-A | 0.291 | 0.120 | |
| B-C | 0.218 | 0.124 | |
| C-B | 0.191 | 0.130 | |
| B-AC | 0.509 | 0.243 | (for shared lane CA, CB) |

# Priority Junction Analysis

| | | | | | |
|---|---|---|---|---|---|
| Junction: | Hong Man Street / Tai Man Street | | | | |
| Design Year: | 2033 | Job Number: | J7408 | Date: | 26 Nov 2025 |
| Scenario: | Year 2033 without the Proposed Hotel | | | Page | 11 |



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

| Input | | Input | | Input | | Calculated | |
|---|---|---|---|---|---|---|---|
| W | 7.70 | V-rBA | 130 | w-BA | 4.80 | D | 1.0443 |
| W-CR | 0.00 | V-lBA | 40 | w-BC | 4.80 | E | 1.1181 |
| | | V-rBC | 130 | w-CB | 3.70 | F | 0.9595 |
| | | V-rCB | 70 | | | Y | 0.7344 |

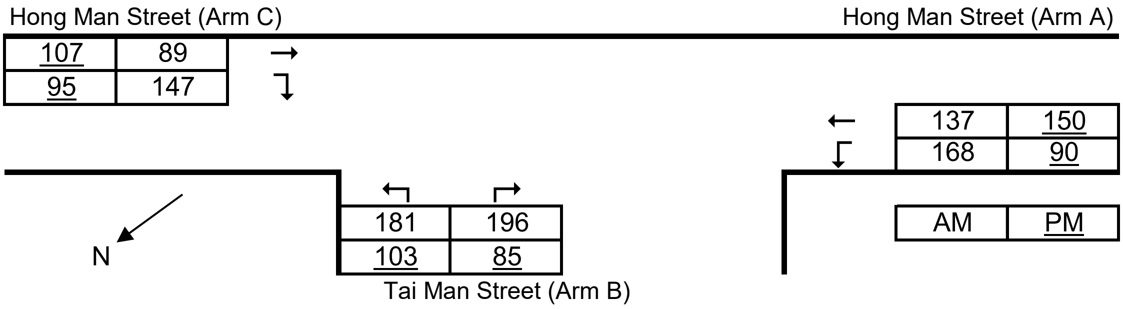
Analysis :

| Traffic Flows, pcu/hr | AM | PM | Capacity, pcu/hr | AM | PM |
|---|---|---|---|---|---|
| q-CA | 88 | 106 | Q-BA | 525 | 548 |
| q-CB | 147 | 95 | Q-BC | 774 | 779 |
| q-AB | 168 | 90 | Q-CB | 638 | 655 |
| q-AC | 132 | 144 | Q-BAC | 621 | 654 |
| q-BA | 196 | 85 | | | |
| q-BC | 181 | 103 | | | |
| f | 0.480 | 0.548 | | | |

| Ratio-of-flow to Capacity | AM | PM | |
|---|---|---|---|
| B-A | 0.373 | 0.155 | |
| B-C | 0.234 | 0.132 | |
| C-B | 0.230 | 0.145 | |
| B-AC | 0.607 | 0.287 | (for shared lane CA, CB) |

# Priority Junction Analysis

Junction: Hong Man Street / Tai Man Street
Design Year: 2033 Job Number: J7408 Date: 26 Nov 2025
Scenario: Year 2033 with the Proposed Hotel Page 12



The predictive equations of capacity of movement are:
Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]
Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]
Q-CB = F[745 - 0.364Y(q-AC + q-AB)]
The geometric parameters represented by D, E, F are:
D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]
E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]
F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]
where Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

| Input | | Input | | Input | | Calculated | |
|---|---|---|---|---|---|---|---|
| W | 7.70 | V-rBA | 130 | w-BA | 4.80 | D | 1.0443 |
| W-CR | 0.00 | V-lBA | 40 | w-BC | 4.80 | E | 1.1181 |
| | | V-rBC | 130 | w-CB | 3.70 | F | 0.9595 |
| | | V-rCB | 70 | | | Y | 0.7344 |

Analysis :

| Traffic Flows, pcu/hr | AM | PM | Capacity, pcu/hr | AM | PM |
|---|---|---|---|---|---|
| q-CA | 89 | 107 | Q-BA | 524 | 546 |
| q-CB | 147 | 95 | Q-BC | 772 | 777 |
| q-AB | 168 | 90 | Q-CB | 637 | 653 |
| q-AC | 137 | 150 | Q-BAC | 619 | 653 |
| q-BA | 196 | 85 | | | |
| q-BC | 181 | 103 | | | |
| f | 0.480 | 0.548 | | | |

| Ratio-of-flow to Capacity | AM | PM | |
|---|---|---|---|
| B-A | 0.374 | 0.156 | |
| B-C | 0.234 | 0.132 | |
| C-B | 0.231 | 0.145 | |
| B-AC | 0.609 | 0.288 | (for shared lane CA, CB) |

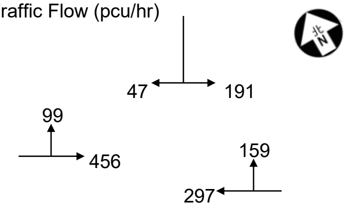
# Signal Junction Analysis

Junction: Chai Wan Road / Hong Man Street
Job Number: J7408
Scenario: Existing Condition
P. 13
Design Year: 2025
Designed By: AYT
Checked By: LKW
Date: 26 Nov 2025

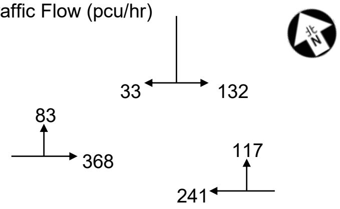
| Approach | | Phase | Stage | Width (m) | Radius (m) | % Up-hill Gradient | AM Peak Turning % | AM Peak Sat. Flow (pcu/hr) | AM Peak Flow (pcu/hr) | AM Peak y value | AM Peak Critical y | PM Peak Turning % | PM Peak Sat. Flow (pcu/hr) | PM Peak Flow (pcu/hr) | PM Peak y value | PM Peak Critical y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chai Wan Road EB | LT+SA | A1 | 1 | 3.50 | 14.0 | | 37 | 1988 | 270 | 0.136 | 0.136 | 38 | 1986 | 219 | 0.110 | 0.110 |
| Chai Wan Road EB | SA | A2 | 1 | 3.50 | | | | 2105 | 285 | 0.135 | | | 2105 | 232 | 0.110 | |
| | | | | | | | | | | | | | | | | |
| Chai Wan Road WB | SA | B1 | 2 | 3.50 | | | | 1965 | 143 | 0.073 | | | 1965 | 116 | 0.059 | |
| Chai Wan Road WB | SA | B2 | 2 | 3.50 | | | | 2105 | 154 | 0.073 | | | 2105 | 125 | 0.059 | |
| Chai Wan Road WB | RT | B3 | 2 | 3.50 | 15.0 | | 100 | 1914 | 159 | 0.083 | 0.083 | 100 | 1914 | 117 | 0.061 | 0.061 |
| | | | | | | | | | | | | | | | | |
| Hong Man Road SB | LT+RT | C1 | 4 | 4.50 | 13.0 | | 100 | 1851 | 238 | 0.129 | 0.129 | 100 | 1851 | 165 | 0.089 | 0.089 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| pedestrian phase | Dp | 3 | | min crossing time = | 13 | sec GM + | 10 | sec FGM = | 23 | sec |
| | Ep | 3 | | min crossing time = | 8 | sec GM + | 7 | sec FGM = | 15 | sec |

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

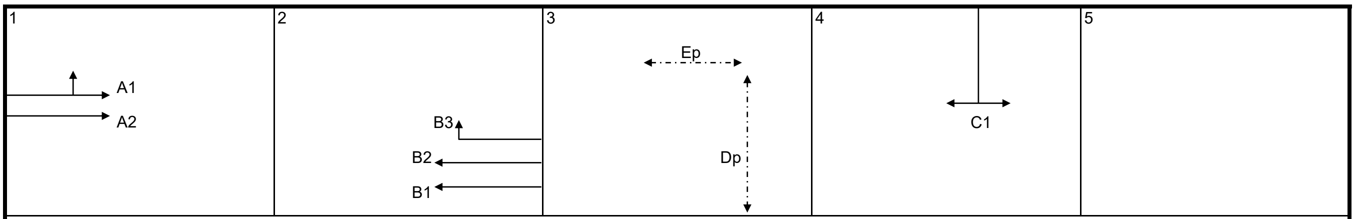


**S=1940+100(W–3.25)**
**$S_M$=S÷(1+1.5f/r)**

**S=2080+100(W–3.25)**
**$S_M$=(S–230)÷(1+1.5f/r)**

| | AM Peak | | PM Peak | |
|---|---|---|---|---|
| Group | 1+2+4 | | 1+2+4 | |
| Sum y | 0.347 | | 0.261 | |
| L (s) | 52 | | 52 | |
| C (s) | 110 | | 110 | |
| practical y | 0.475 | | 0.475 | |
| R.C. (%) | 37% | | 82% | |

Note:



| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| AM | G = | I/G = 5 | G = | I/G = 11 | G = 23 | I/G = 11 | G = | I/G = 5 | G = | I/G = |
| | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = |
| PM | G = | I/G = 5 | G = | I/G = 11 | G = 23 | I/G = 11 | G = | I/G = 5 | G = | I/G = |
| | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = |

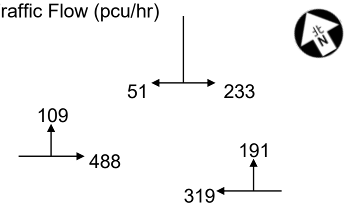
# Signal Junction Analysis

Junction: Chai Wan Road / Hong Man Street  Job Number: J7408
Scenario: Year 2033 without the Proposed Hotel  P. 14
Design Year: 2033  Designed By: AYT  Checked By: LKW  Date: 26 Nov 2025

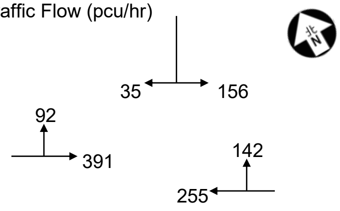
| Approach | | Phase | Stage | Width (m) | Radius (m) | % Up-hill Gradient | AM Peak Turning % | AM Peak Sat. Flow (pcu/hr) | AM Peak Flow (pcu/hr) | AM Peak y value | AM Peak Critical y | PM Peak Turning % | PM Peak Sat. Flow (pcu/hr) | PM Peak Flow (pcu/hr) | PM Peak y value | PM Peak Critical y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chai Wan Road EB | LT+SA | A1 | 1 | 3.50 | 14.0 | | 38 | 1986 | 290 | 0.146 | 0.146 | 39 | 1984 | 234 | 0.118 | 0.118 |
| Chai Wan Road EB | SA | A2 | 1 | 3.50 | | | | 2105 | 307 | 0.146 | | | 2105 | 249 | 0.118 | |
| | | | | | | | | | | | | | | | | |
| Chai Wan Road WB | SA | B1 | 2 | 3.50 | | | | 1965 | 154 | 0.078 | | | 1965 | 123 | 0.063 | |
| Chai Wan Road WB | SA | B2 | 2 | 3.50 | | | | 2105 | 165 | 0.078 | | | 2105 | 132 | 0.063 | |
| Chai Wan Road WB | RT | B3 | 2 | 3.50 | 15.0 | | 100 | 1914 | 191 | 0.100 | 0.100 | 100 | 1914 | 142 | 0.074 | 0.074 |
| | | | | | | | | | | | | | | | | |
| Hong Man Road SB | LT+RT | C1 | 4 | 4.50 | 13.0 | | 100 | 1851 | 284 | 0.153 | 0.153 | 100 | 1851 | 191 | 0.103 | 0.103 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| pedestrian phase | Dp | 3 | | min crossing time = | 13 | sec GM + | 10 | sec FGM = | 23 | sec |
| | Ep | 3 | | min crossing time = | 8 | sec GM + | 7 | sec FGM = | 15 | sec |

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

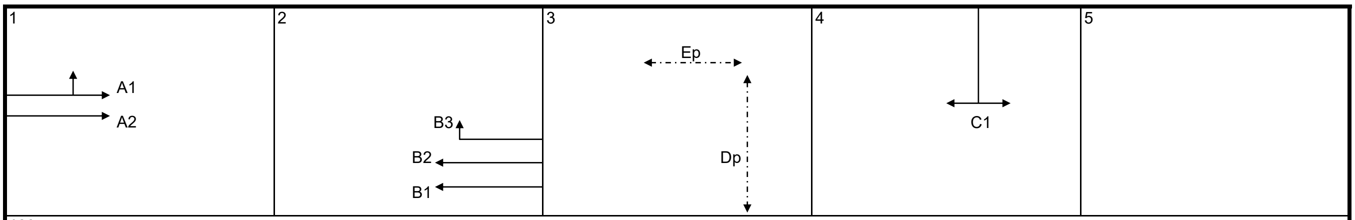


S=1940+100(W–3.25)  S=2080+100(W–3.25)

$S_M$=S÷(1+1.5f/r)  $S_M$=(S–230)÷(1+1.5f/r)

| | AM Peak | | PM Peak | |
|---|---|---|---|---|
| Group | 1+2+4 | | 1+2+4 | |
| Sum y | 0.399 | | 0.295 | |
| L (s) | 52 | | 52 | |
| C (s) | 110 | | 110 | |
| practical y | 0.475 | | 0.475 | |
| R.C. (%) | 19% | | 61% | |

Note:



| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| AM | G = | I/G = 5 | G = | I/G = 11 | G = 23 | I/G = 11 | G = | I/G = 5 | G = | I/G = |
| | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = |
| PM | G = | I/G = 5 | G = | I/G = 11 | G = 23 | I/G = 11 | G = | I/G = 5 | G = | I/G = |
| | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = |

# Signal Junction Analysis

Junction: Chai Wan Road / Hong Man Street　　Job Number: J7408

Scenario: Year 2033 with the Proposed Hotel　　P. 15

Design Year: 2033　　Designed By: AYT　　Checked By: LKW　　Date: 26 Nov 2025

| Approach | Phase | Stage | Width (m) | Radius (m) | % Up-hill Gradient | AM Peak Turning % | AM Peak Sat. Flow (pcu/hr) | AM Peak Flow (pcu/hr) | AM Peak y value | AM Peak Critical y | PM Peak Turning % | PM Peak Sat. Flow (pcu/hr) | PM Peak Flow (pcu/hr) | PM Peak y value | PM Peak Critical y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chai Wan Road EB LT+SA | A1 | 1 | 3.50 | 14.0 | | 39 | 1984 | 292 | 0.147 | | 41 | 1980 | 237 | 0.120 | 0.120 |
| Chai Wan Road EB SA | A2 | 1 | 3.50 | | | | 2105 | 310 | 0.147 | 0.147 | | 2105 | 252 | 0.120 | |
| | | | | | | | | | | | | | | | |
| Chai Wan Road WB SA | B1 | 2 | 3.50 | | | | 1965 | 154 | 0.078 | | | 1965 | 123 | 0.063 | |
| Chai Wan Road WB SA | B2 | 2 | 3.50 | | | | 2105 | 165 | 0.078 | | | 2105 | 132 | 0.063 | |
| Chai Wan Road WB RT | B3 | 2 | 3.50 | 15.0 | | 100 | 1914 | 191 | 0.100 | 0.100 | 100 | 1914 | 142 | 0.074 | 0.074 |
| | | | | | | | | | | | | | | | |
| Hong Man Road SB LT+RT | C1 | 4 | 4.50 | 13.0 | | 100 | 1851 | 285 | 0.154 | 0.154 | 100 | 1851 | 192 | 0.104 | 0.104 |
| | | | | | | | | | | | | | | | |
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|---|---|---|---|---|---|---|---|---|---|---|---|
| pedestrian phase | Dp | 3 | | min crossing time = | 13 | sec GM + | 10 | sec FGM = | 23 | sec | |
| | Ep | 3 | | min crossing time = | 8 | sec GM + | 7 | sec FGM = | 15 | sec | |
| | | | | | | | | | | | |
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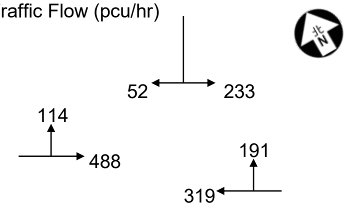
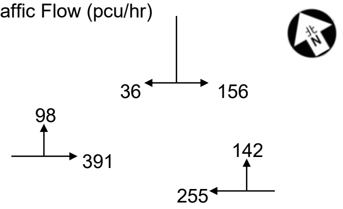
AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

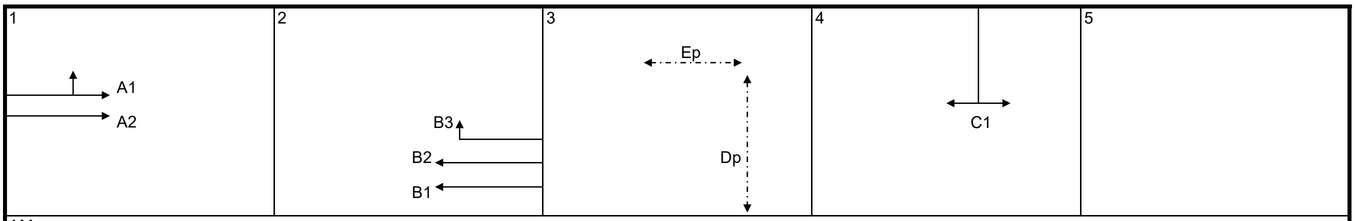


S=1940+100(W–3.25)　　S=2080+100(W–3.25)

$S_M$=S÷(1+1.5f/r)　　$S_M$=(S–230)÷(1+1.5f/r)

| | AM Peak | | PM Peak | |
|---|---|---|---|---|
| Group | 1+2+4 | | 1+2+4 | |
| Sum y | 0.401 | | 0.298 | |
| L (s) | 52 | | 52 | |
| C (s) | 110 | | 110 | |
| practical y | 0.475 | | 0.475 | |
| R.C. (%) | 18% | | 59% | |

Note:



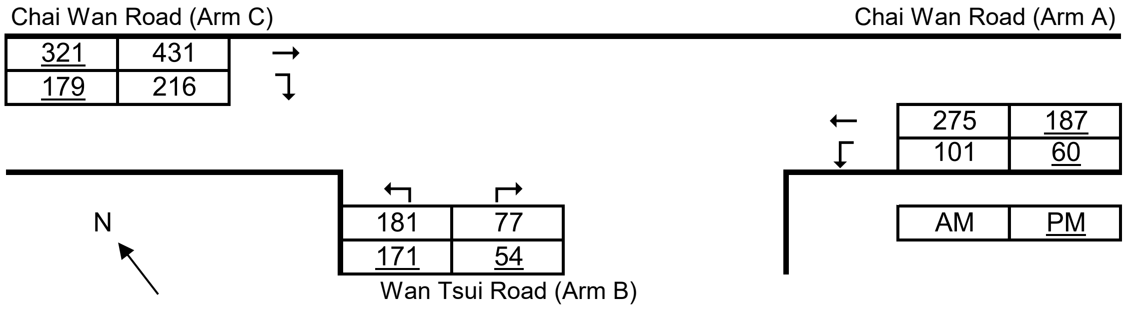
| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| AM | G = | I/G = 5 | G = | I/G = 11 | G = 23 | I/G = 11 | G = | I/G = 5 | G = | I/G = |
| | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = |
| PM | G = | I/G = 5 | G = | I/G = 11 | G = 23 | I/G = 11 | G = | I/G = 5 | G = | I/G = |
| | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = |

# Priority Junction Analysis

Junction: Chai Wan Road / Wan Tsui Road

Design Year: 2025 Job Number: J7408 Date: 26 Nov 2025

Scenario: Existing Condition Page 16



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

| | Input | | Input | | Input | | Calculated |
|---|---|---|---|---|---|---|---|
| W | 21.00 | V-rBA | 140 | w-BA | 4.00 | D | 0.9916 |
| W-CR | 2.90 | V-lBA | 55 | w-BC | 4.00 | E | 1.0515 |
| | | V-rBC | 140 | w-CB | 2.90 | F | 0.9546 |
| | | V-rCB | 150 | | | Y | 0.2755 |

Analysis :

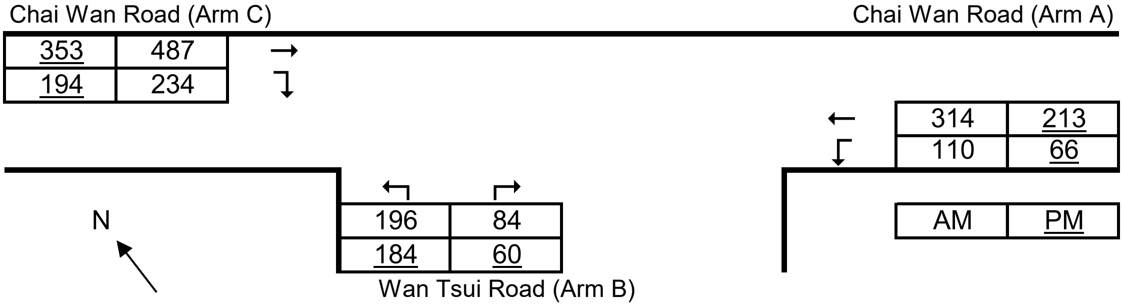
| Traffic Flows, pcu/hr | AM | PM |
|---|---|---|
| q-CA | 431 | 321 |
| q-CB | 216 | 179 |
| q-AB | 101 | 60 |
| q-AC | 275 | 187 |
| q-BA | 77 | 54 |
| q-BC | 181 | 171 |
| f | 0.702 | 0.760 |

| Capacity, pcu/hr | AM | PM |
|---|---|---|
| Q-BA | 573 | 596 |
| Q-BC | 750 | 761 |
| Q-CB | 675 | 688 |
| Q-BAC | 687 | 714 |

| Ratio-of-flow to Capacity | AM | PM |
|---|---|---|
| B-A | 0.134 | 0.091 |
| B-C | 0.241 | 0.225 |
| C-B | 0.320 | 0.260 |
| B-AC | 0.376 | 0.315 (for shared lane CA, CB) |

# Priority Junction Analysis

| | | | | | |
|---|---|---|---|---|---|
| Junction: | Chai Wan Road / Wan Tsui Road | | | | |
| Design Year: | 2033 | Job Number: | J7408 | Date: | 26 Nov 2025 |
| Scenario: | Year 2033 without the Proposed Hotel | | | Page | 17 |



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

| Geometry : | Input | | Input | | Input | | Calculated | |
|---|---|---|---|---|---|---|---|---|
| | W | 21.00 | V-rBA | 140 | w-BA | 4.00 | D | 0.9916 |
| | W-CR | 2.90 | V-lBA | 55 | w-BC | 4.00 | E | 1.0515 |
| | | | V-rBC | 140 | w-CB | 2.90 | F | 0.9546 |
| | | | V-rCB | 150 | | | Y | 0.2755 |

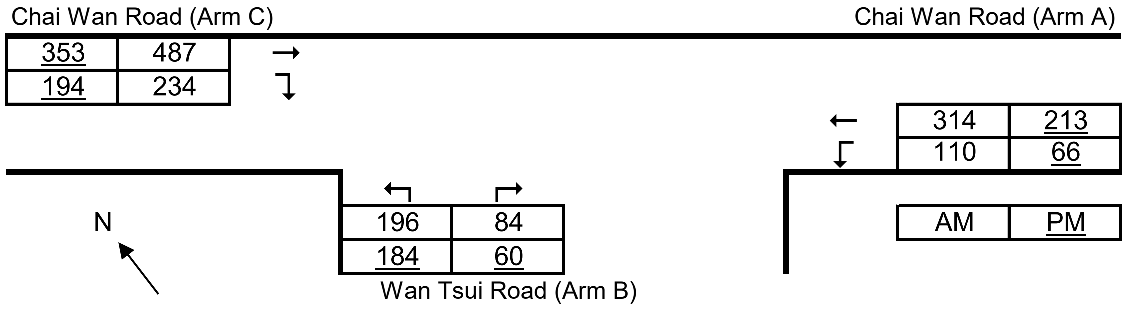
Analysis :

| Traffic Flows, pcu/hr | AM | PM | Capacity, pcu/hr | AM | PM |
|---|---|---|---|---|---|
| q-CA | 487 | 353 | Q-BA | 563 | 589 |
| q-CB | 234 | 194 | Q-BC | 746 | 758 |
| q-AB | 110 | 66 | Q-CB | 671 | 684 |
| q-AC | 314 | 213 | Q-BAC | 679 | 708 |
| q-BA | 84 | 60 | | | |
| q-BC | 196 | 184 | | | |
| f | 0.700 | 0.754 | | | |

| Ratio-of-flow to Capacity | AM | PM | |
|---|---|---|---|
| B-A | 0.149 | 0.102 | |
| B-C | 0.263 | 0.243 | |
| C-B | 0.349 | 0.283 | |
| B-AC | 0.412 | 0.345 | (for shared lane CA, CB) |

# Priority Junction Analysis

| | | | | | |
|---|---|---|---|---|---|
| Junction: | Chai Wan Road / Wan Tsui Road | | | | |
| Design Year: | 2033 | Job Number: | J7408 | Date: | 26 Nov 2025 |
| Scenario: | Year 2033 with the Proposed Hotel | | | Page | 18 |



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]
Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]
Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]
E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]
F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

| Input | | Input | | Input | | Calculated | |
|---|---|---|---|---|---|---|---|
| W | 21.00 | V-rBA | 140 | w-BA | 4.00 | D | 0.9916 |
| W-CR | 2.90 | V-lBA | 55 | w-BC | 4.00 | E | 1.0515 |
| | | V-rBC | 140 | w-CB | 2.90 | F | 0.9546 |
| | | V-rCB | 150 | | | Y | 0.2755 |

Analysis :

| Traffic Flows, pcu/hr | AM | PM | Capacity, pcu/hr | AM | PM |
|---|---|---|---|---|---|
| q-CA | 487 | 353 | Q-BA | 563 | 589 |
| q-CB | 234 | 194 | Q-BC | 746 | 758 |
| q-AB | 110 | 66 | Q-CB | 671 | 684 |
| q-AC | 314 | 213 | Q-BAC | 679 | 708 |
| q-BA | 84 | 60 | | | |
| q-BC | 196 | 184 | | | |
| f | 0.700 | 0.754 | | | |

| Ratio-of-flow to Capacity | AM | PM | |
|---|---|---|---|
| B-A | 0.149 | 0.102 | |
| B-C | 0.263 | 0.243 | |
| C-B | 0.349 | 0.283 | |
| B-AC | 0.412 | 0.345 | (for shared lane CA, CB) |

# Roundabout Analysis

Location Chai Wan Road Roundabout J7
Scenario Existing Condition Page 19
Design Year 2025 Job Number J7408 Date 26 Nov 2025

**AM Peak**

| Arm | To A | To B | To C | To D | Total | $q_c$ |
|---|---|---|---|---|---|---|
| From A | | | | | 742 | 775 |
| From B | | | | | 875 | 531 |
| From C | | | | | 334 | 916 |
| From D | | | | | 1160 | 874 |
| Total | | | | | 3111 | |

**PM Peak**

| Arm | To A | To B | To C | To D | Total | $q_c$ |
|---|---|---|---|---|---|---|
| From A | | | | | 712 | 597 |
| From B | | | | | 801 | 405 |
| From C | | | | | 287 | 742 |
| From D | | | | | 915 | 782 |
| Total | | | | | 2715 | |

**Legend**

| Arm | Road (in clockwise order) |
|---|---|
| A | Island Eastern Corridor |
| B | Chai Wan Road WB |
| C | Wan Tsui Road |
| D | Chai Wan Road EB |

**Geometric Parameters**

| Arm | e (m) | v (m) | r (m) | L (m) | D (m) | ∅ (°) | S |
|---|---|---|---|---|---|---|---|
| From A | 8.0 | 7.3 | 100.0 | 10.0 | 80 | 10 | 0.1 |
| From B | 9.4 | 6.4 | 57.0 | 32.0 | 80 | 28 | 0.2 |
| From C | 8.0 | 4.5 | 25.0 | 29.0 | 80 | 32 | 0.2 |
| From D | 10.0 | 7.3 | 50.0 | 67.0 | 80 | 27 | 0.1 |

**Predictive Equation $Q_E = K(F - f_c q_c)$**

| | |
|---|---|
| $Q_E$ | Entry Capacity |
| $q_c$ | Circulating Flow across the Entry |
| K | $= 1-0.00347(\varnothing-30)-0.978[(1/r)-0.05]$ |
| F | $= 303x_2$ |
| $f_c$ | $= 0.210t_D(1+0.2x_2)$ |
| $t_D$ | $= 1+0.5/(1+M)$ |
| M | $= \exp[(D-60)/10]$ |
| $x_2$ | $= v+(e-v)/(1+2S)$ |
| S | $= 1.6(e-v)/L$ |

**Limitation**

| | | |
|---|---|---|
| e | Entry Width | 4.0 - 15.0 m |
| v | Approach Half Width | 2.0 - 7.3 m |
| r | Entry Radius | 6.0 - 100.0 m |
| L | Effective Length of Flare | 1.0 - 100.0 m |
| D | Inscribed Circle Diameter | 15 - 100 m |
| ∅ | Entry Angle | 10° - 60° |
| S | Sharpness of Flare | 0.0 - 3.0 |

**Ratio-of-Flow to Capacity (RFC)**

| | | | | | | | $Q_E$ | | Entry Flow | | RFC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Arm | $x_2$ | M | $t_D$ | K | F | $f_c$ | AM | PM | AM | PM | AM | PM |
| From A | 7.872 | 7.389 | 1.060 | 1.109 | 2385.184 | 0.573 | 2152 | 2265 | 742 | 712 | 0.345 | 0.314 |
| From B | 8.708 | 7.389 | 1.060 | 1.039 | 2638.431 | 0.610 | 2404 | 2484 | 875 | 801 | 0.364 | 0.322 |
| From C | 7.025 | 7.389 | 1.060 | 1.003 | 2128.537 | 0.535 | 1643 | 1736 | 334 | 287 | 0.203 | 0.165 |
| From D | 9.692 | 7.389 | 1.060 | 1.040 | 2936.552 | 0.654 | 2459 | 2522 | 1160 | 915 | 0.472 | 0.363 |

# Roundabout Analysis

Location Chai Wan Road Roundabout J7
Scenario Year 2033 without the Proposed Hotel Page 20
Design Year 2033 Job Number J7408 Date 26 Nov 2025

**AM Peak**

| Arm | To A | To B | To C | To D | Total | $q_c$ |
|---|---|---|---|---|---|---|
| From A | | | | | 888 | 842 |
| From B | | | | | 1040 | 606 |
| From C | | | | | 363 | 1114 |
| From D | | | | | 1272 | 1053 |
| Total | | | | | 3563 | |

**PM Peak**

| Arm | To A | To B | To C | To D | Total | $q_c$ |
|---|---|---|---|---|---|---|
| From A | | | | | 870 | 650 |
| From B | | | | | 937 | 465 |
| From C | | | | | 313 | 898 |
| From D | | | | | 1005 | 932 |
| Total | | | | | 3125 | |

**Legend**

| Arm | Road (in clockwise order) |
|---|---|
| A | Island Eastern Corridor |
| B | Chai Wan Road WB |
| C | Wan Tsui Road |
| D | Chai Wan Road EB |

**Geometric Parameters**

| Arm | e (m) | v (m) | r (m) | L (m) | D (m) | ∅ (°) | S |
|---|---|---|---|---|---|---|---|
| From A | 8.0 | 7.3 | 100.0 | 10.0 | 80 | 10 | 0.1 |
| From B | 9.4 | 6.4 | 57.0 | 32.0 | 80 | 28 | 0.2 |
| From C | 8.0 | 4.5 | 25.0 | 29.0 | 80 | 32 | 0.2 |
| From D | 10.0 | 7.3 | 50.0 | 67.0 | 80 | 27 | 0.1 |

**Predictive Equation $Q_E = K(F - f_c q_c)$**

$Q_E$ Entry Capacity
$q_c$ Circulating Flow across the Entry
$K = 1-0.00347(\varnothing-30)-0.978[(1/r)-0.05]$
$F = 303x_2$
$f_c = 0.210t_D(1+0.2x_2)$
$t_D = 1+0.5/(1+M)$
$M = \exp[(D-60)/10]$
$x_2 = v+(e-v)/(1+2S)$
$S = 1.6(e-v)/L$

**Limitation**

| | | |
|---|---|---|
| e | Entry Width | 4.0 - 15.0 m |
| v | Approach Half Width | 2.0 - 7.3 m |
| r | Entry Radius | 6.0 - 100.0 m |
| L | Effective Length of Flare | 1.0 - 100.0 m |
| D | Inscribed Circle Diameter | 15 - 100 m |
| ∅ | Entry Angle | 10° - 60° |
| S | Sharpness of Flare | 0.0 - 3.0 |

**Ratio-of-Flow to Capacity (RFC)**

| | | | | | | | $Q_E$ | | Entry Flow | | RFC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Arm | $x_2$ | M | $t_D$ | K | F | $f_c$ | AM | PM | AM | PM | AM | PM |
| From A | 7.872 | 7.389 | 1.060 | 1.109 | 2385.184 | 0.573 | 2109 | 2231 | 888 | 870 | 0.421 | 0.390 |
| From B | 8.708 | 7.389 | 1.060 | 1.039 | 2638.431 | 0.610 | 2357 | 2446 | 1040 | 937 | 0.441 | 0.383 |
| From C | 7.025 | 7.389 | 1.060 | 1.003 | 2128.537 | 0.535 | 1537 | 1653 | 363 | 313 | 0.236 | 0.189 |
| From D | 9.692 | 7.389 | 1.060 | 1.040 | 2936.552 | 0.654 | 2337 | 2420 | 1272 | 1005 | 0.544 | 0.415 |

# Roundabout Analysis

Location Chai Wan Road Roundabout J7
Scenario Year 2033 with the Proposed Hotel Page 21
Design Year 2033 Job Number J7408 Date 26 Nov 2025

**AM Peak**

| Arm | To A | To B | To C | To D | Total | $q_c$ |
|---|---|---|---|---|---|---|
| From A | | | | | 934 | 846 |
| From B | | | | | 1042 | 653 |
| From C | | | | | 363 | 1162 |
| From D | | | | | 1320 | 1101 |
| Total | | | | | 3659 | |

**PM Peak**

| Arm | To A | To B | To C | To D | Total | $q_c$ |
|---|---|---|---|---|---|---|
| From A | | | | | 918 | 653 |
| From B | | | | | 940 | 514 |
| From C | | | | | 313 | 949 |
| From D | | | | | 1051 | 983 |
| Total | | | | | 3222 | |

**Legend**

| Arm | Road (in clockwise order) |
|---|---|
| A | Island Eastern Corridor |
| B | Chai Wan Road WB |
| C | Wan Tsui Road |
| D | Chai Wan Road EB |

**Geometric Parameters**

| Arm | e (m) | v (m) | r (m) | L (m) | D (m) | ∅ (°) | S |
|---|---|---|---|---|---|---|---|
| From A | 8.0 | 7.3 | 100.0 | 10.0 | 80 | 10 | 0.1 |
| From B | 9.4 | 6.4 | 57.0 | 32.0 | 80 | 28 | 0.2 |
| From C | 8.0 | 4.5 | 25.0 | 29.0 | 80 | 32 | 0.2 |
| From D | 10.0 | 7.3 | 50.0 | 67.0 | 80 | 27 | 0.1 |

**Predictive Equation $Q_E = K(F - f_c q_c)$**

$Q_E$ Entry Capacity
$q_c$ Circulating Flow across the Entry
$K = 1-0.00347(\varnothing-30)-0.978[(1/r)-0.05]$
$F = 303x_2$
$f_c = 0.210t_D(1+0.2x_2)$
$t_D = 1+0.5/(1+M)$
$M = \exp[(D-60)/10]$
$x_2 = v+(e-v)/(1+2S)$
$S = 1.6(e-v)/L$

**Limitation**

| | | |
|---|---|---|
| e | Entry Width | 4.0 - 15.0 m |
| v | Approach Half Width | 2.0 - 7.3 m |
| r | Entry Radius | 6.0 - 100.0 m |
| L | Effective Length of Flare | 1.0 - 100.0 m |
| D | Inscribed Circle Diameter | 15 - 100 m |
| ∅ | Entry Angle | 10° - 60° |
| S | Sharpness of Flare | 0.0 - 3.0 |

**Ratio-of-Flow to Capacity (RFC)**

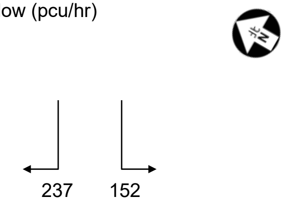
| | | | | | | | $Q_E$ | | Entry Flow | | RFC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Arm | $x_2$ | M | $t_D$ | K | F | $f_c$ | AM | PM | AM | PM | AM | PM |
| From A | 7.872 | 7.389 | 1.060 | 1.109 | 2385.184 | 0.573 | 2107 | 2229 | 934 | 918 | 0.443 | 0.412 |
| From B | 8.708 | 7.389 | 1.060 | 1.039 | 2638.431 | 0.610 | 2327 | 2415 | 1042 | 940 | 0.448 | 0.389 |
| From C | 7.025 | 7.389 | 1.060 | 1.003 | 2128.537 | 0.535 | 1511 | 1625 | 363 | 313 | 0.240 | 0.193 |
| From D | 9.692 | 7.389 | 1.060 | 1.040 | 2936.552 | 0.654 | 2305 | 2385 | 1320 | 1051 | 0.573 | 0.441 |

# Signal Junction Analysis

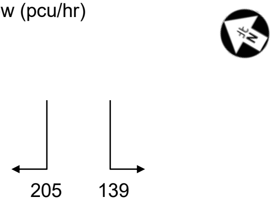
Junction: Ning Foo Street / Lee Chung Street Job Number: J7408
Scenario: Existing Condition P. 22
Design Year: 2025 Designed By: AYT Checked By: LKW Date: 26 Nov 2025

| | | | | | | | AM Peak | | | | | PM Peak | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | | Phase | Stage | Width (m) | Radius (m) | % Up-hill Gradient | Turning % | Sat. Flow (pcu/hr) | Flow (pcu/hr) | y value | Critical y | Turning % | Sat. Flow (pcu/hr) | Flow (pcu/hr) | y value | Critical y |
| Ning Foo Street SB | LT | A1 | 1 | 4.20 | 14.0 | | 100 | 1838 | 152 | 0.083 | | 100 | 1838 | 139 | 0.076 | |
| Ning Foo Street SB | RT | A2 | 1 | 3.70 | 20.0 | | 100 | 1847 | 237 | 0.128 | 0.128 | 100 | 1847 | 205 | 0.111 | 0.111 |
| pedestrian phase | | Bp | 2 | | min crossing time = | | | 11 | sec GM + | | 7 | sec FGM = | | 18 | sec | |

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



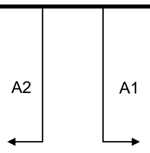
S=1940+100(W–3.25) S=2080+100(W–3.25)

$S_M$=S÷(1+1.5f/r) $S_M$=(S–230)÷(1+1.5f/r)

| | AM Peak | | PM Peak | |
|---|---|---|---|---|
| Group | 1 | | 1 | |
| Sum y | 0.128 | | 0.111 | |
| L (s) | 30 | | 30 | |
| C (s) | 60 | | 60 | |
| practical y | 0.450 | | 0.450 | |
| R.C. (%) | 251% | | 305% | |

Note:

1



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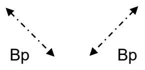

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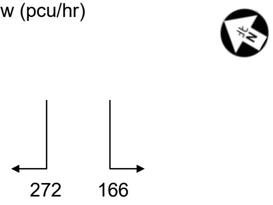
| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| AM | G = | I/G = 5 | G = 15 | I/G = 11 | G = | I/G = | G = | I/G = | G = | I/G = |
| | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = |
| PM | G = | I/G = 5 | G = 15 | I/G = 11 | G = | I/G = | G = | I/G = | G = | I/G = |
| | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = |

# Signal Junction Analysis

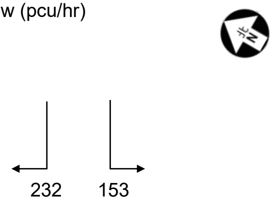
Junction: Ning Foo Street / Lee Chung Street
Job Number: J7408
Scenario: Year 2033 without the Proposed Hotel
P. 23
Design Year: 2033
Designed By: AYT
Checked By: LKW
Date: 26 Nov 2025

| Approach | | Phase | Stage | Width (m) | Radius (m) | % Up-hill Gradient | AM Peak Turning % | AM Peak Sat. Flow (pcu/hr) | AM Peak Flow (pcu/hr) | AM Peak y value | AM Peak Critical y | PM Peak Turning % | PM Peak Sat. Flow (pcu/hr) | PM Peak Flow (pcu/hr) | PM Peak y value | PM Peak Critical y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ning Foo Street SB | LT | A1 | 1 | 4.20 | 14.0 | | 100 | 1838 | 166 | 0.090 | | 100 | 1838 | 153 | 0.083 | |
| Ning Foo Street SB | RT | A2 | 1 | 3.70 | 20.0 | | 100 | 1847 | 272 | 0.147 | 0.147 | 100 | 1847 | 232 | 0.126 | 0.126 |
| pedestrian phase | | Bp | 2 | | min crossing time = | | 11 | sec GM + | | 7 | sec FGM = | | 18 | sec | | |

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



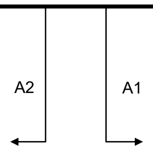
S=1940+100(W–3.25)
S=2080+100(W–3.25)

$S_M$=S÷(1+1.5f/r)
$S_M$=(S–230)÷(1+1.5f/r)

| | AM Peak | | PM Peak | |
|---|---|---|---|---|
| Group | 1 | | 1 | |
| Sum y | 0.147 | | 0.126 | |
| L (s) | 30 | | 30 | |
| C (s) | 60 | | 60 | |
| practical y | 0.450 | | 0.450 | |
| R.C. (%) | 206% | | 258% | |

Note:

1



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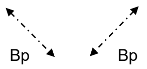

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PM
G = I/G = 5 G = 15 I/G = 11 G = I/G = G = I/G = G = I/G =
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# Signal Junction Analysis

Junction: Ning Foo Street / Lee Chung Street Job Number: J7408
Scenario: Year 2033 with the Proposed Hotel P. 24
Design Year: 2033 Designed By: AYT Checked By: LKW Date: 26 Nov 2025

| Approach | Phase | Stage | Width (m) | Radius (m) | % Up-hill Gradient | AM Peak Turning % | AM Peak Sat. Flow (pcu/hr) | AM Peak Flow (pcu/hr) | AM Peak y value | AM Peak Critical y | PM Peak Turning % | PM Peak Sat. Flow (pcu/hr) | PM Peak Flow (pcu/hr) | PM Peak y value | PM Peak Critical y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ning Foo Street SB LT | A1 | 1 | 4.20 | 14.0 | | 100 | 1838 | 166 | 0.090 | | 100 | 1838 | 153 | 0.083 | |
| Ning Foo Street SB RT | A2 | 1 | 3.70 | 20.0 | | 100 | 1847 | 320 | 0.173 | 0.173 | 100 | 1847 | 283 | 0.153 | 0.153 |
| | | | | | | | | | | | | | | | |
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|---|---|---|---|---|---|---|---|---|---|---|---|
| pedestrian phase | Bp | 2 | | min crossing time = | 11 | sec GM + | 7 | sec FGM = | 18 | sec | |
| | | | | | | | | | | | |
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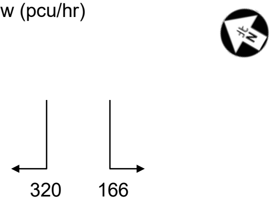
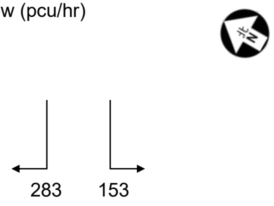
AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



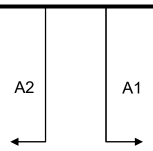
**S=1940+100(W–3.25)** **S=2080+100(W–3.25)**

**$S_M$=S÷(1+1.5f/r)** **$S_M$=(S–230)÷(1+1.5f/r)**

| | AM Peak | | PM Peak | |
|---|---|---|---|---|
| Group | 1 | | 1 | |
| Sum y | 0.173 | | 0.153 | |
| L (s) | 30 | | 30 | |
| C (s) | 60 | | 60 | |
| practical y | 0.450 | | 0.450 | |
| R.C. (%) | 160% | | 194% | |

Note:

1



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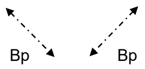

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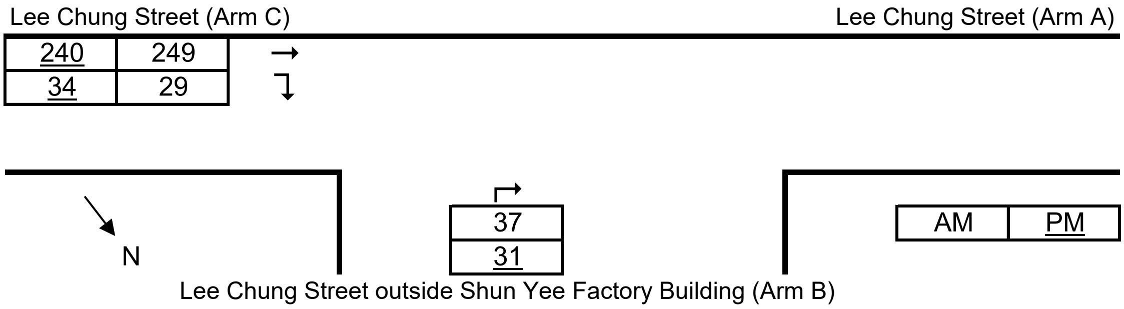
| | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = |
|---|---|---|---|---|---|---|---|---|---|---|
| AM | G = | I/G = 5 | G = 15 | I/G = 11 | G = | I/G = | G = | I/G = | G = | I/G = |
| | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = |
| PM | G = | I/G = 5 | G = 15 | I/G = 11 | G = | I/G = | G = | I/G = | G = | I/G = |
| | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = | G = | I/G = |

# Priority Junction Analysis

Junction: Lee Chung Street / Lee Chung Street outside Shun Yee Factory Building
Design Year: 2025 Job Number: J7408 Date: 26 Nov 2025
Scenario: Existing Condition Page 25



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]
Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]
Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]
E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]
F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

| Input | | Input | | Input | | Calculated | |
|---|---|---|---|---|---|---|---|
| W | 10.50 | V-rBA | 45 | w-BA | 4.40 | D | 0.9324 |
| W-CR | 0.00 | V-lBA | 40 | w-BC | 0.00 | E | 0.6126 |
| | | V-rBC | 45 | w-CB | 3.50 | F | 0.9460 |
| | | V-rCB | 75 | | | Y | 0.6378 |

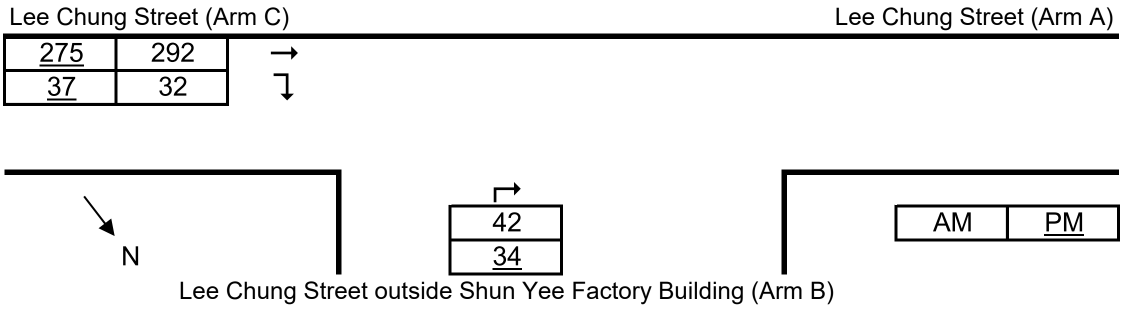
Analysis :

| Traffic Flows, pcu/hr | AM | PM | Capacity, pcu/hr | AM | PM |
|---|---|---|---|---|---|
| q-CA | 249 | 240 | Q-BA | 542 | 541 |
| q-CB | 29 | 34 | Q-BC | 456 | 456 |
| q-AB | 0 | 0 | Q-CB | 705 | 705 |
| q-AC | 0 | 0 | Q-BAC | 542 | 541 |
| q-BA | 37 | 31 | | | |
| q-BC | 0 | 0 | | | |
| f | 0.000 | 0.000 | | | |

| Ratio-of-flow to Capacity | AM | PM |
|---|---|---|
| B-A | 0.068 | 0.057 |
| B-C | 0.000 | 0.000 |
| C-B | 0.041 | 0.048 |

## Priority Junction Analysis

Junction: Lee Chung Street / Lee Chung Street outside Shun Yee Factory Building
Design Year: 2033 Job Number: J7408 Date: 26 Nov 2025
Scenario: Year 2033 without the Proposed Hotel Page 26



The predictive equations of capacity of movement are:
Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]
Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]
Q-CB = F[745 - 0.364Y(q-AC + q-AB)]
The geometric parameters represented by D, E, F are:
D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]
E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]
F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]
where Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

| Input | | Input | | Input | | Calculated | |
|---|---|---|---|---|---|---|---|
| W | 10.50 | V-rBA | 45 | w-BA | 4.40 | D | 0.9324 |
| W-CR | 0.00 | V-lBA | 40 | w-BC | 0.00 | E | 0.6126 |
| | | V-rBC | 45 | w-CB | 3.50 | F | 0.9460 |
| | | V-rCB | 75 | | | Y | 0.6378 |

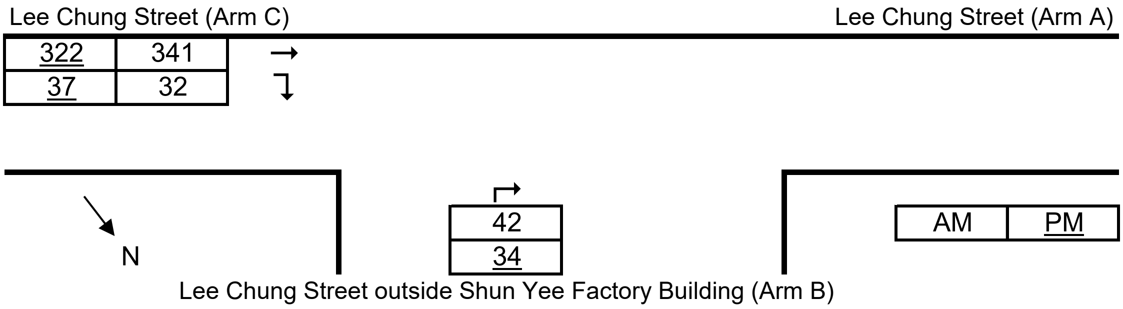
Analysis :

| Traffic Flows, pcu/hr | AM | PM | Capacity, pcu/hr | AM | PM |
|---|---|---|---|---|---|
| q-CA | 292 | 275 | Q-BA | 535 | 536 |
| q-CB | 32 | 37 | Q-BC | 456 | 456 |
| q-AB | 0 | 0 | Q-CB | 705 | 705 |
| q-AC | 0 | 0 | Q-BAC | 535 | 536 |
| q-BA | 42 | 34 | | | |
| q-BC | 0 | 0 | | | |
| f | 0.000 | 0.000 | | | |

| Ratio-of-flow to Capacity | AM | PM |
|---|---|---|
| B-A | 0.079 | 0.063 |
| B-C | 0.000 | 0.000 |
| C-B | 0.045 | 0.053 |

# Priority Junction Analysis

Junction: Lee Chung Street / Lee Chung Street outside Shun Yee Factory Building
Design Year: 2033 Job Number: J7408 Date: 26 Nov 2025
Scenario: Year 2033 with the Proposed Hotel Page 27



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]
Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]
Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]
E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]
F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

| Input | | Input | | Input | | Calculated | |
|---|---|---|---|---|---|---|---|
| W | 10.50 | V-rBA | 45 | w-BA | 4.40 | D | 0.9324 |
| W-CR | 0.00 | V-lBA | 40 | w-BC | 0.00 | E | 0.6126 |
| | | V-rBC | 45 | w-CB | 3.50 | F | 0.9460 |
| | | V-rCB | 75 | | | Y | 0.6378 |

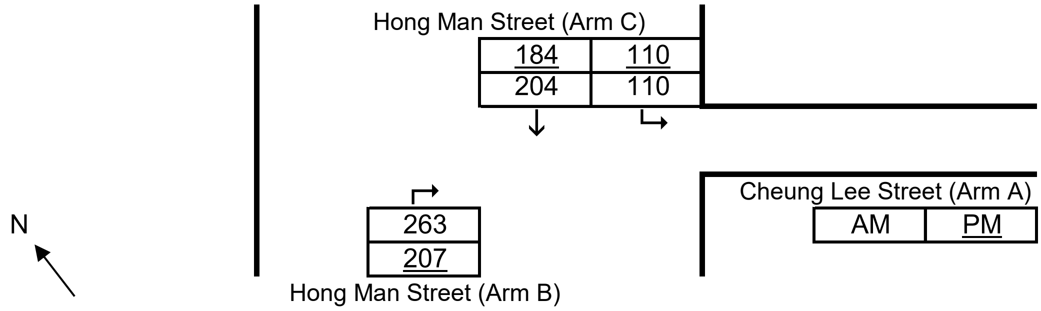
Analysis :

| Traffic Flows, pcu/hr | AM | PM | Capacity, pcu/hr | AM | PM |
|---|---|---|---|---|---|
| q-CA | 341 | 322 | Q-BA | 528 | 529 |
| q-CB | 32 | 37 | Q-BC | 456 | 456 |
| q-AB | 0 | 0 | Q-CB | 705 | 705 |
| q-AC | 0 | 0 | Q-BAC | 528 | 529 |
| q-BA | 42 | 34 | | | |
| q-BC | 0 | 0 | | | |
| f | 0.000 | 0.000 | | | |

| Ratio-of-flow to Capacity | AM | PM |
|---|---|---|
| B-A | 0.080 | 0.064 |
| B-C | 0.000 | 0.000 |
| C-B | 0.045 | 0.053 |

# Priority Junction Analysis

Junction: Hong Man Street / Cheung Lee Street
Design Year: 2025 Job Number: J7408 Date: 26 Nov 2025
Scenario: Existing Condition Page 28



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]
Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]
Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]
E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]
F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

| Geometry : | Input | | Input | | Input | | Calculated | |
|---|---|---|---|---|---|---|---|---|
| | W | 5.90 | V-rBA | 30 | w-BA | 4.40 | D | 0.9395 |
| | W-CR | 0.00 | V-lBA | 75 | w-BC | 0.00 | E | 0.6037 |
| | | | V-rBC | 30 | w-CB | 4.40 | F | 0.9819 |
| | | | V-rCB | 28 | | | Y | 0.7965 |

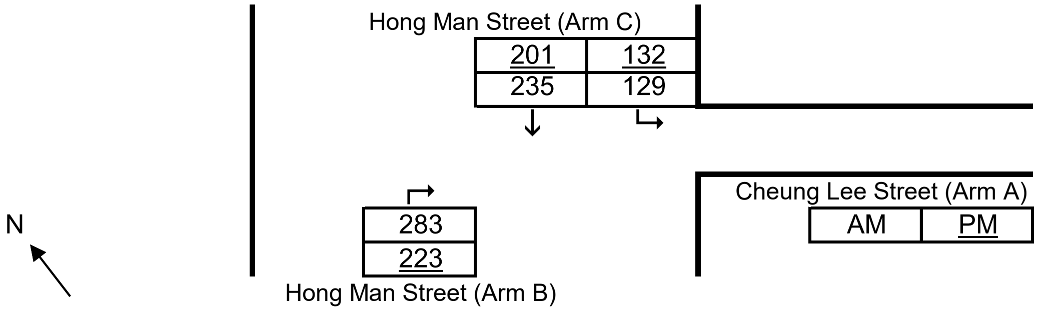
Analysis :

| Traffic Flows, pcu/hr | AM | PM | Capacity, pcu/hr | AM | PM |
|---|---|---|---|---|---|
| q-CA | 110 | 110 | Q-BA | 491 | 499 |
| q-CB | 204 | 184 | Q-CB | 731 | 731 |
| q-AB | 0 | 0 | | | |
| q-AC | 0 | 0 | | | |
| q-BA | 263 | 207 | | | |
| f | 0.000 | 0.000 | | | |

| Ratio-of-flow to Capacity | AM | PM |
|---|---|---|
| B-A | 0.536 | 0.415 |
| C-B | 0.279 | 0.252 |

# Priority Junction Analysis

| | | | | | |
|---|---|---|---|---|---|
| Junction: | Hong Man Street / Cheung Lee Street | | | | |
| Design Year: | 2033 | Job Number: | J7408 | Date: | 26 Nov 2025 |
| Scenario: | Year 2033 without the Proposed Hotel | | | Page | 29 |



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

| Input | | Input | | Input | | Calculated | |
|---|---|---|---|---|---|---|---|
| W | 5.90 | V-rBA | 30 | w-BA | 4.40 | D | 0.9395 |
| W-CR | 0.00 | V-lBA | 75 | w-BC | 0.00 | E | 0.6037 |
| | | V-rBC | 30 | w-CB | 4.40 | F | 0.9819 |
| | | V-rCB | 28 | | | Y | 0.7965 |

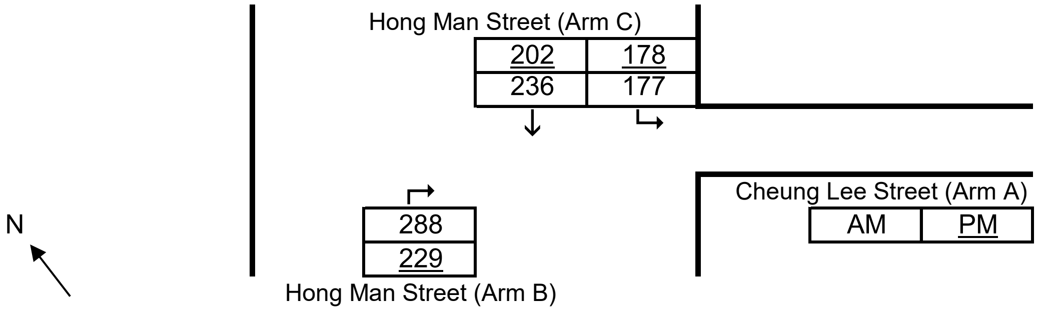
Analysis :

| Traffic Flows, pcu/hr | AM | PM | Capacity, pcu/hr | AM | PM |
|---|---|---|---|---|---|
| q-CA | 129 | 132 | Q-BA | 476 | 488 |
| q-CB | 235 | 201 | Q-CB | 731 | 731 |
| q-AB | 0 | 0 | | | |
| q-AC | 0 | 0 | | | |
| q-BA | 283 | 223 | | | |
| f | 0.000 | 0.000 | | | |

| Ratio-of-flow to Capacity | AM | PM |
|---|---|---|
| B-A | 0.595 | 0.457 |
| C-B | 0.321 | 0.275 |

# Priority Junction Analysis

| | | | | | |
|---|---|---|---|---|---|
| Junction: | Hong Man Street / Cheung Lee Street | | | | |
| Design Year: | 2033 | Job Number: | J7408 | Date: | 26 Nov 2025 |
| Scenario: | Year 2033 with the Proposed Hotel | | | Page | 30 |



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]
Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]
Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]
E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]
F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

| Geometry : | Input | | Input | | Input | | Calculated | |
|---|---|---|---|---|---|---|---|---|
| | W | 5.90 | V-rBA | 30 | w-BA | 4.40 | D | 0.9395 |
| | W-CR | 0.00 | V-lBA | 75 | w-BC | 0.00 | E | 0.6037 |
| | | | V-rBC | 30 | w-CB | 4.40 | F | 0.9819 |
| | | | V-rCB | 28 | | | Y | 0.7965 |

Analysis :

| Traffic Flows, pcu/hr | AM | PM | Capacity, pcu/hr | AM | PM |
|---|---|---|---|---|---|
| q-CA | 177 | 178 | Q-BA | 467 | 480 |
| q-CB | 236 | 202 | Q-CB | 731 | 731 |
| q-AB | 0 | 0 | | | |
| q-AC | 0 | 0 | | | |
| q-BA | 288 | 229 | | | |
| f | 0.000 | 0.000 | | | |

| Ratio-of-flow to Capacity | AM | PM |
|---|---|---|
| B-A | 0.617 | 0.477 |
| C-B | 0.323 | 0.276 |

# Roundabout Analysis

|  |  |  |  |  |  |
|---|---|---|---|---|---|
| Location | Chai Wan Road Roundabout |  |  |  | J7 |
| Scenario | Year 2033 without the Proposed Hotel |  |  |  | Page 31 |
| Design Year | 2033 | Job Number | J7408 | Date | 26 Nov 2025 |

**AM Peak**

| Arm | To A | To B | To C | To D | Total | $q_c$ |
|---|---|---|---|---|---|---|
| From A |  |  |  |  | 888 | 842 |
| From B |  |  |  |  | 1040 | 606 |
| From C |  |  |  |  | 363 | 1114 |
| From D |  |  |  |  | 676 | 1053 |
| Total |  |  |  |  | 2967 |  |

**PM Peak**

| Arm | To A | To B | To C | To D | Total | $q_c$ |
|---|---|---|---|---|---|---|
| From A |  |  |  |  | 870 | 650 |
| From B |  |  |  |  | 937 | 465 |
| From C |  |  |  |  | 313 | 898 |
| From D |  |  |  |  | 455 | 932 |
| Total |  |  |  |  | 2575 |  |

**Legend**

| Arm | Road (in clockwise order) |
|---|---|
| A | Island Eastern Corridor |
| B | Chai Wan Road WB |
| C | Wan Tsui Road |
| D | Chai Wan Road EB |

**Geometric Parameters**

| Arm | e (m) | v (m) | r (m) | L (m) | D (m) | ∅ (°) | S |
|---|---|---|---|---|---|---|---|
| From A | 8.0 | 7.3 | 100.0 | 10.0 | 76 | 10 | 0.1 |
| From B | 9.4 | 6.4 | 57.0 | 32.0 | 76 | 28 | 0.2 |
| From C | 8.0 | 4.5 | 25.0 | 29.0 | 76 | 32 | 0.2 |
| From D | 8.0 | 6.6 | 50.0 | 10.0 | 76 | 33 | 0.2 |

**Predictive Equation $Q_E = K(F - f_c q_c)$**

| | |
|---|---|
| $Q_E$ | Entry Capacity |
| $q_c$ | Circulating Flow across the Entry |
| K | $= 1-0.00347(\varnothing-30)-0.978[(1/r)-0.05]$ |
| F | $= 303x_2$ |
| $f_c$ | $= 0.210t_D(1+0.2x_2)$ |
| $t_D$ | $= 1+0.5/(1+M)$ |
| M | $= \exp[(D-60)/10]$ |
| $x_2$ | $= v+(e-v)/(1+2S)$ |
| S | $= 1.6(e-v)/L$ |

**Limitation**

| | | |
|---|---|---|
| e | Entry Width | 4.0 - 15.0 m |
| v | Approach Half Width | 2.0 - 7.3 m |
| r | Entry Radius | 6.0 - 100.0 m |
| L | Effective Length of Flare | 1.0 - 100.0 m |
| D | Inscribed Circle Diameter | 15 - 100 m |
| ∅ | Entry Angle | 10° - 60° |
| S | Sharpness of Flare | 0.0 - 3.0 |

**Ratio-of-Flow to Capacity (RFC)**

|  |  |  |  |  |  |  | $Q_E$ |  | Entry Flow |  | RFC |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Arm | $x_2$ | M | $t_D$ | K | F | $f_c$ | AM | PM | AM | PM | AM | PM |
| From A | 7.872 | 4.953 | 1.084 | 1.109 | 2385.184 | 0.586 | 2097 | 2222 | 888 | 870 | 0.423 | 0.392 |
| From B | 8.708 | 4.953 | 1.084 | 1.039 | 2638.431 | 0.624 | 2348 | 2439 | 1040 | 937 | 0.443 | 0.384 |
| From C | 7.025 | 4.953 | 1.084 | 1.003 | 2128.537 | 0.547 | 1523 | 1642 | 363 | 313 | 0.238 | 0.191 |
| From D | 7.567 | 4.953 | 1.084 | 1.019 | 2292.756 | 0.572 | 1722 | 1793 | 676 | 455 | 0.393 | 0.254 |

# Roundabout Analysis

| | | |
|---|---|---|
| Location | Chai Wan Road Roundabout | J7 |
| Scenario | Year 2033 with the Proposed Hotel | Page 32 |

Design Year 2033 Job Number J7408 Date 26 Nov 2025

**AM Peak**

| Arm | To A | To B | To C | To D | Total | $q_c$ |
|---|---|---|---|---|---|---|
| From A | | | | | 934 | 846 |
| From B | | | | | 1042 | 653 |
| From C | | | | | 363 | 1162 |
| From D | | | | | 680 | 1101 |
| Total | | | | | 3019 | |

**PM Peak**

| Arm | To A | To B | To C | To D | Total | $q_c$ |
|---|---|---|---|---|---|---|
| From A | | | | | 918 | 653 |
| From B | | | | | 940 | 514 |
| From C | | | | | 313 | 949 |
| From D | | | | | 458 | 983 |
| Total | | | | | 2629 | |

**Legend**

| Arm | Road (in clockwise order) |
|---|---|
| A | Island Eastern Corridor |
| B | Chai Wan Road WB |
| C | Wan Tsui Road |
| D | Chai Wan Road EB |

**Geometric Parameters**

| Arm | e (m) | v (m) | r (m) | L (m) | D (m) | ∅ (°) | S |
|---|---|---|---|---|---|---|---|
| From A | 8.0 | 7.3 | 100.0 | 10.0 | 76 | 10 | 0.1 |
| From B | 9.4 | 6.4 | 57.0 | 32.0 | 76 | 28 | 0.2 |
| From C | 8.0 | 4.5 | 25.0 | 29.0 | 76 | 32 | 0.2 |
| From D | 8.0 | 6.6 | 50.0 | 10.0 | 76 | 33 | 0.2 |

**Predictive Equation $Q_E = K(F - f_c q_c)$**

| | |
|---|---|
| $Q_E$ | Entry Capacity |
| $q_c$ | Circulating Flow across the Entry |
| K | $= 1-0.00347(\varnothing-30)-0.978[(1/r)-0.05]$ |
| F | $= 303x_2$ |
| $f_c$ | $= 0.210t_D(1+0.2x_2)$ |
| $t_D$ | $= 1+0.5/(1+M)$ |
| M | $= \exp[(D-60)/10]$ |
| $x_2$ | $= v+(e-v)/(1+2S)$ |
| S | $= 1.6(e-v)/L$ |

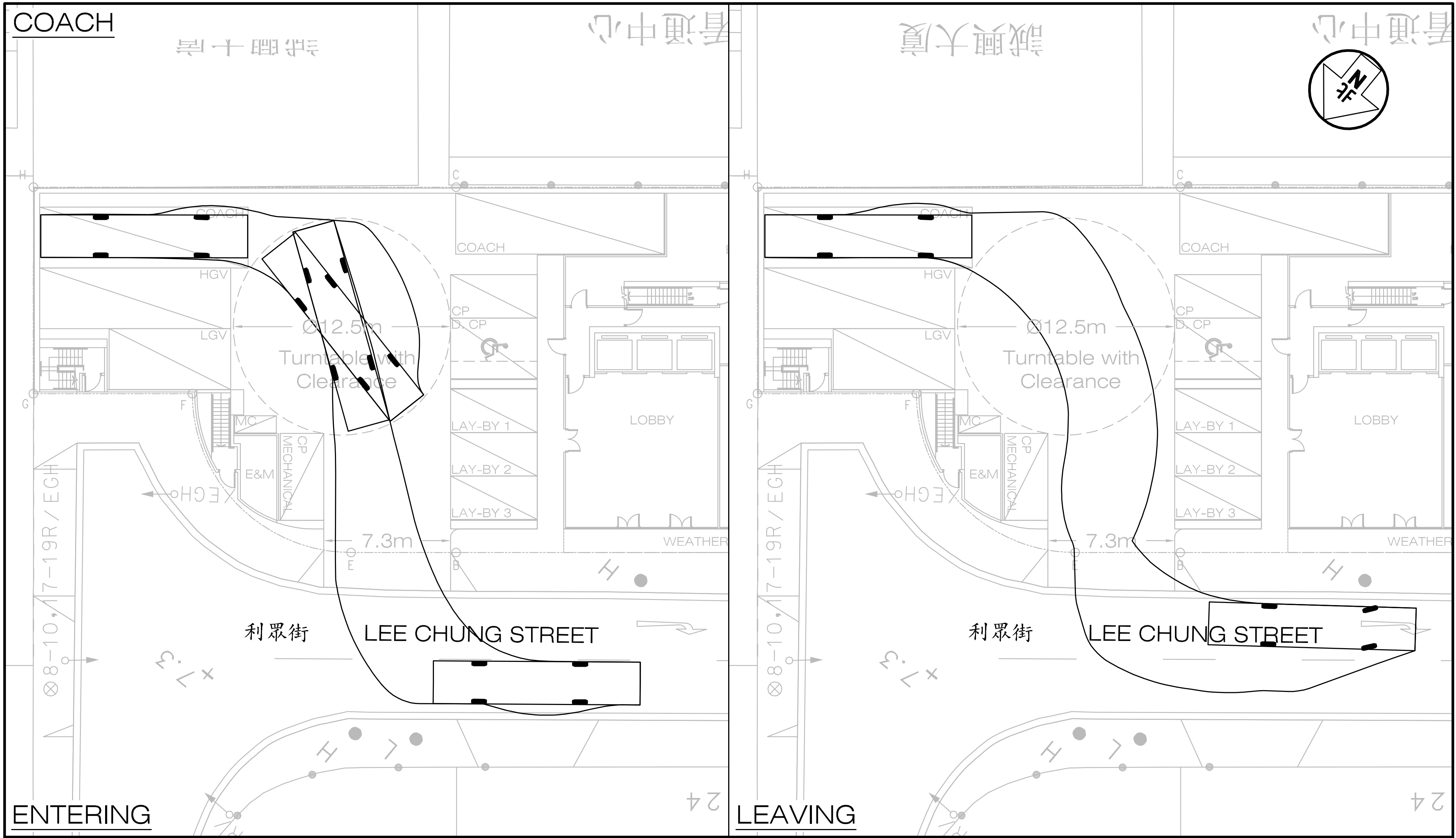
**Limitation**

| | | |
|---|---|---|
| e | Entry Width | 4.0 - 15.0 m |
| v | Approach Half Width | 2.0 - 7.3 m |
| r | Entry Radius | 6.0 - 100.0 m |
| L | Effective Length of Flare | 1.0 - 100.0 m |
| D | Inscribed Circle Diameter | 15 - 100 m |
| ∅ | Entry Angle | 10° - 60° |
| S | Sharpness of Flare | 0.0 - 3.0 |

**Ratio-of-Flow to Capacity (RFC)**

| | | | | | | | $Q_E$ | | Entry Flow | | RFC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Arm | $x_2$ | M | $t_D$ | K | F | $f_c$ | AM | PM | AM | PM | AM | PM |
| From A | 7.872 | 4.953 | 1.084 | 1.109 | 2385.184 | 0.586 | 2094 | 2220 | 934 | 918 | 0.446 | 0.414 |
| From B | 8.708 | 4.953 | 1.084 | 1.039 | 2638.431 | 0.624 | 2317 | 2407 | 1042 | 940 | 0.450 | 0.390 |
| From C | 7.025 | 4.953 | 1.084 | 1.003 | 2128.537 | 0.547 | 1497 | 1614 | 363 | 313 | 0.243 | 0.194 |
| From D | 7.567 | 4.953 | 1.084 | 1.019 | 2292.756 | 0.572 | 1694 | 1763 | 680 | 458 | 0.401 | 0.260 |

# Appendix B –
# Swept Path Analysis


COACH
COACH
HGV
LGV
CP
D. CP
Ø12.5m
Turntable with Clearance
MC
E&M
CP MECHANICAL
LAY-BY 1
LAY-BY 2
LAY-BY 3
LOBBY
WEATHER
7.3m
Ⓧ8-10,17-19R / EGH
利眾街
LEE CHUNG STREET
24
N
ENTERING
LEAVING

Project Title

SECTION 16 PLANNING APPLICATION IN SUPPORT OF PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12 AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG

J7408

Figure Title

# SWEPT PATH OF COACH ENTERING & LEAVING THE SINGLE DECK TOUR BUS LAYBY

| Figure No. | Revision |
|---|---|
| SP1 | C |

| Designed by | Drawn by | Checked by |
|---|---|---|
| L K W | S C Y | K C |

| Scale in A4 | Date |
|---|---|
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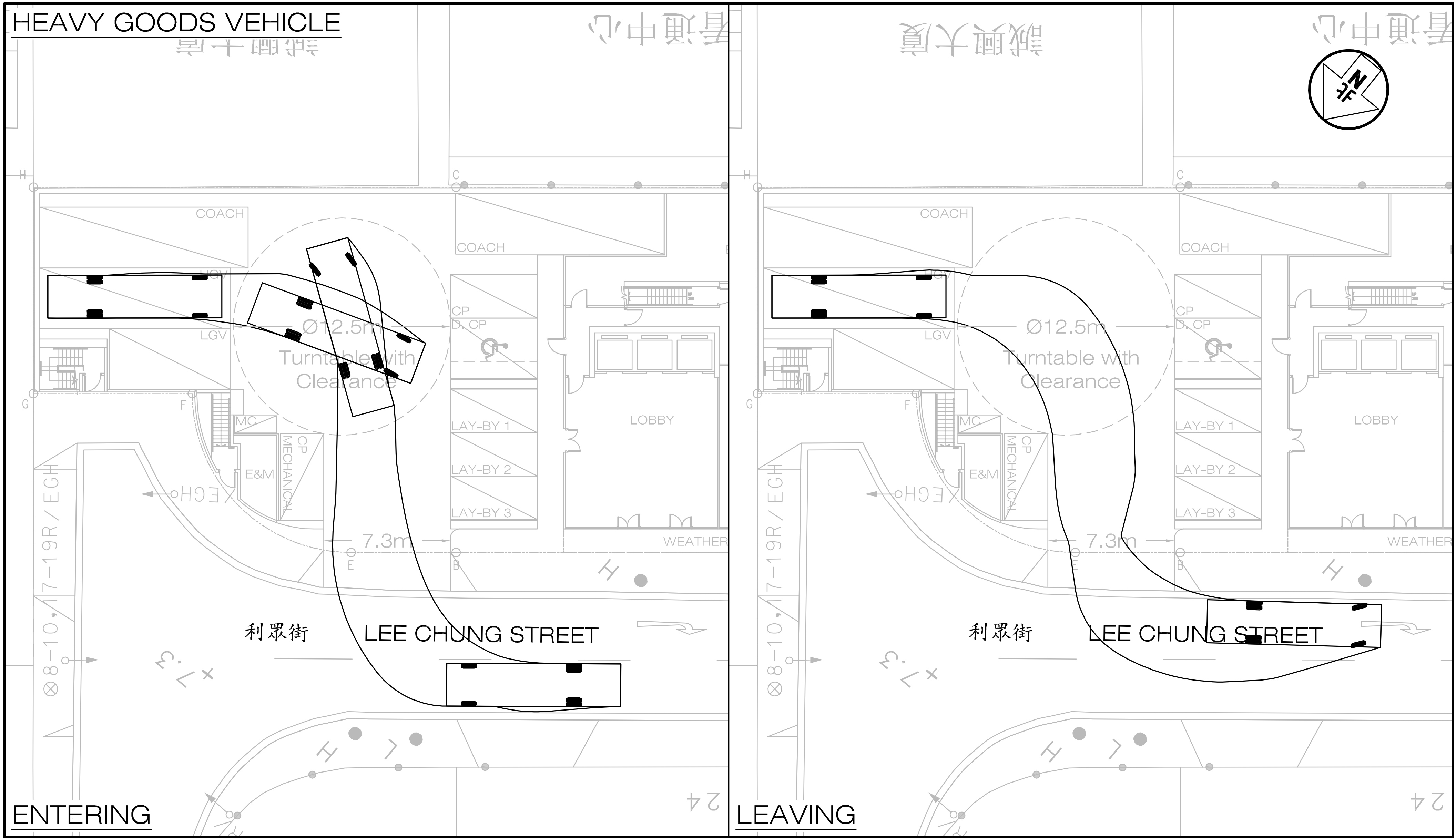
HEAVY GOODS VEHICLE
COACH
COACH
LGV
LGV
Ø12.5m
Turntable with Clearance
CP
D. CP
LOBBY
LAY-BY 1
LAY-BY 2
LAY-BY 3
MC
E&M
CP MECHANICAL
7.3m
WEATHER
8-10, 17-19R / EGH
利眾街
LEE CHUNG STREET
24
N
ENTERING
LEAVING

Project Title

SECTION 16 PLANNING APPLICATION IN SUPPORT OF PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12 AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG

J7408

Figure Title

## SWEPT PATH OF HEAVY GOODS VEHICLE ENTERING & LEAVING THE HGV LOADING / UNLOADING BAY

| | |
|---|---|
| Figure No. | SP2 |
| Revision | C |
| Designed by | L K W |
| Drawn by | S C Y |
| Checked by | K C |
| Scale in A4 | 1 : 300 |
| Date | 21 NOV 2025 |

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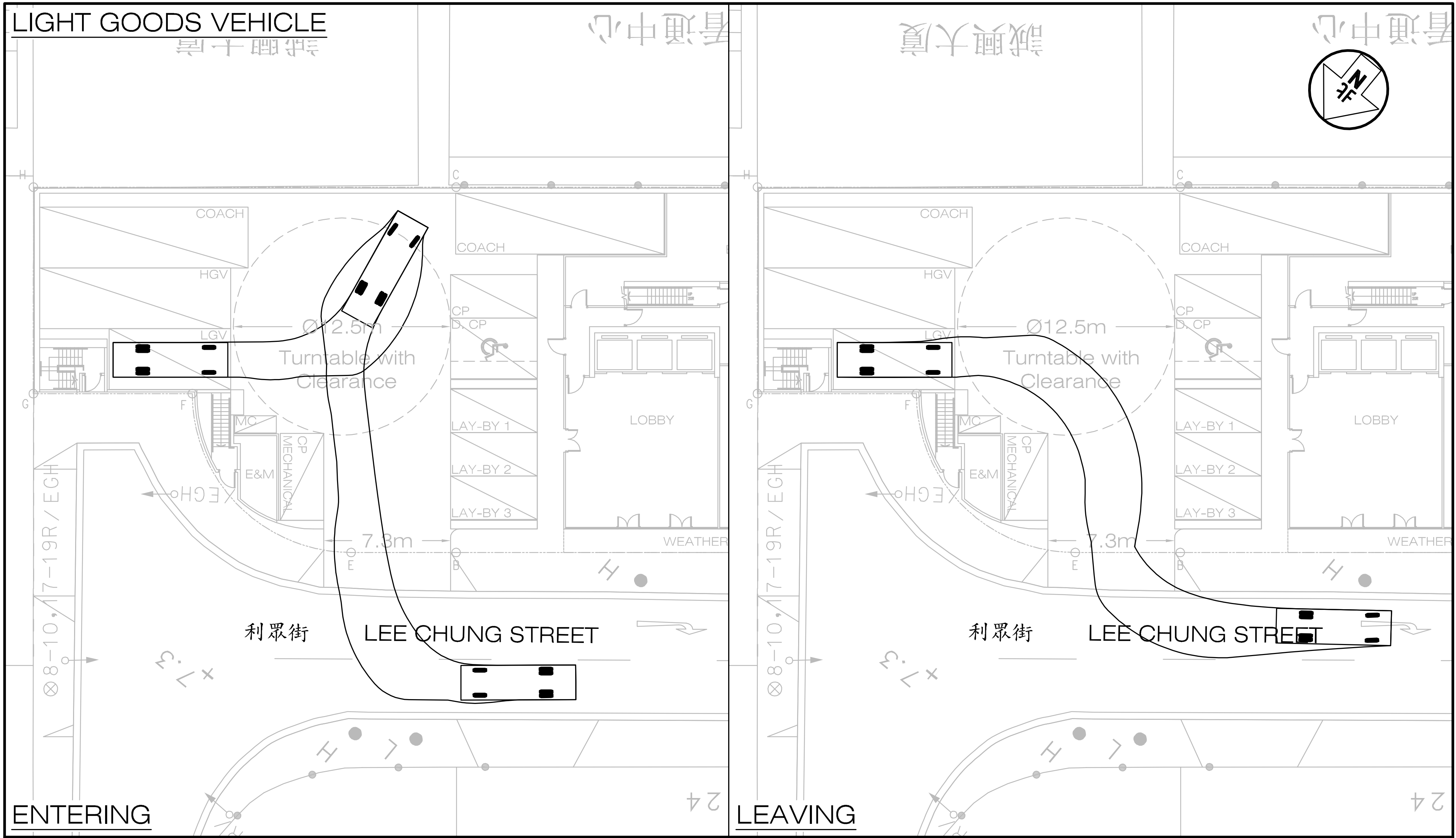
LIGHT GOODS VEHICLE
COACH
HGV
LGV
COACH
Ø12.5m
Turntable with Clearance
CP
D. CP
MC
E&M
CP MECHANICAL
LAY-BY 1
LAY-BY 2
LAY-BY 3
LOBBY
WEATHER
7.3m
利眾街
LEE CHUNG STREET
ENTERING
LEAVING
N

Project Title

SECTION 16 PLANNING APPLICATION IN SUPPORT OF PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12 AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG

J7408

Figure Title

## SWEPT PATH OF LIGHT GOODS VEHICLE
## ENTERING & LEAVING THE LGV LOADING / UNLOADING BAY

| Figure No. | Revision |
|---|---|
| SP3 | C |

| Designed by | Drawn by | Checked by |
|---|---|---|
| L K W | S C Y | K C |

| Scale in A4 | Date |
|---|---|
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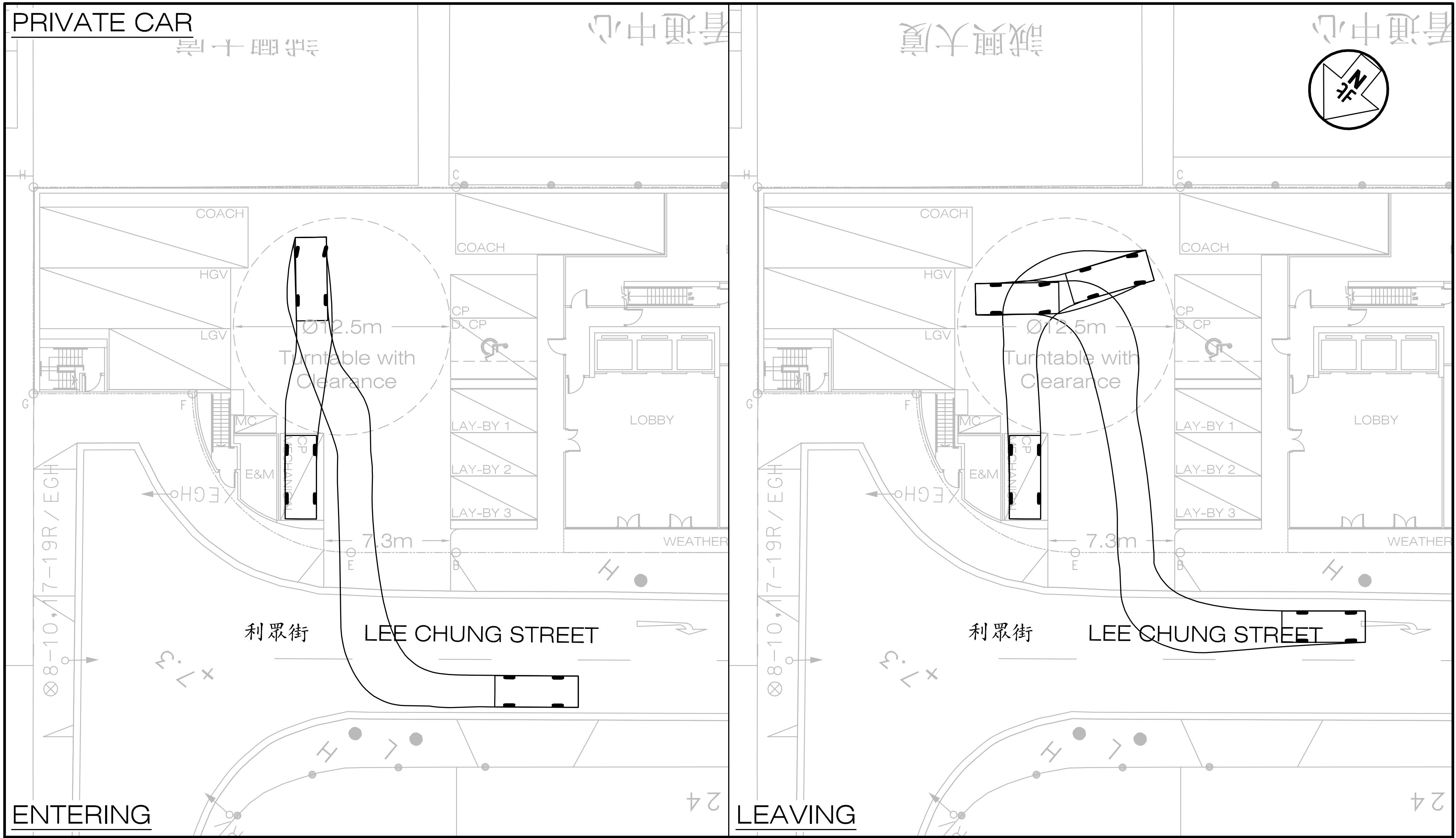
PRIVATE CAR
COACH
COACH
HGV
LGV
Ø12.5m
Turntable with Clearance
CP
D. CP
MC
E&M
CP MECHANICAL
LAY-BY 1
LAY-BY 2
LAY-BY 3
LOBBY
WEATHER
7.3m
H
G
F
C
E
B
利眾街
LEE CHUNG STREET
ENTERING
LEAVING
N

Project Title
SECTION 16 PLANNING APPLICATION IN SUPPORT OF PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12 AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG
J7408

Figure Title
## SWEPT PATH OF PRIVATE CAR
## ENTERING & LEAVING THE DOUBLE–DECK PARKING RACK

| Figure No. | Revision | Designed by | Drawn by | Checked by | Scale in A4 | Date |
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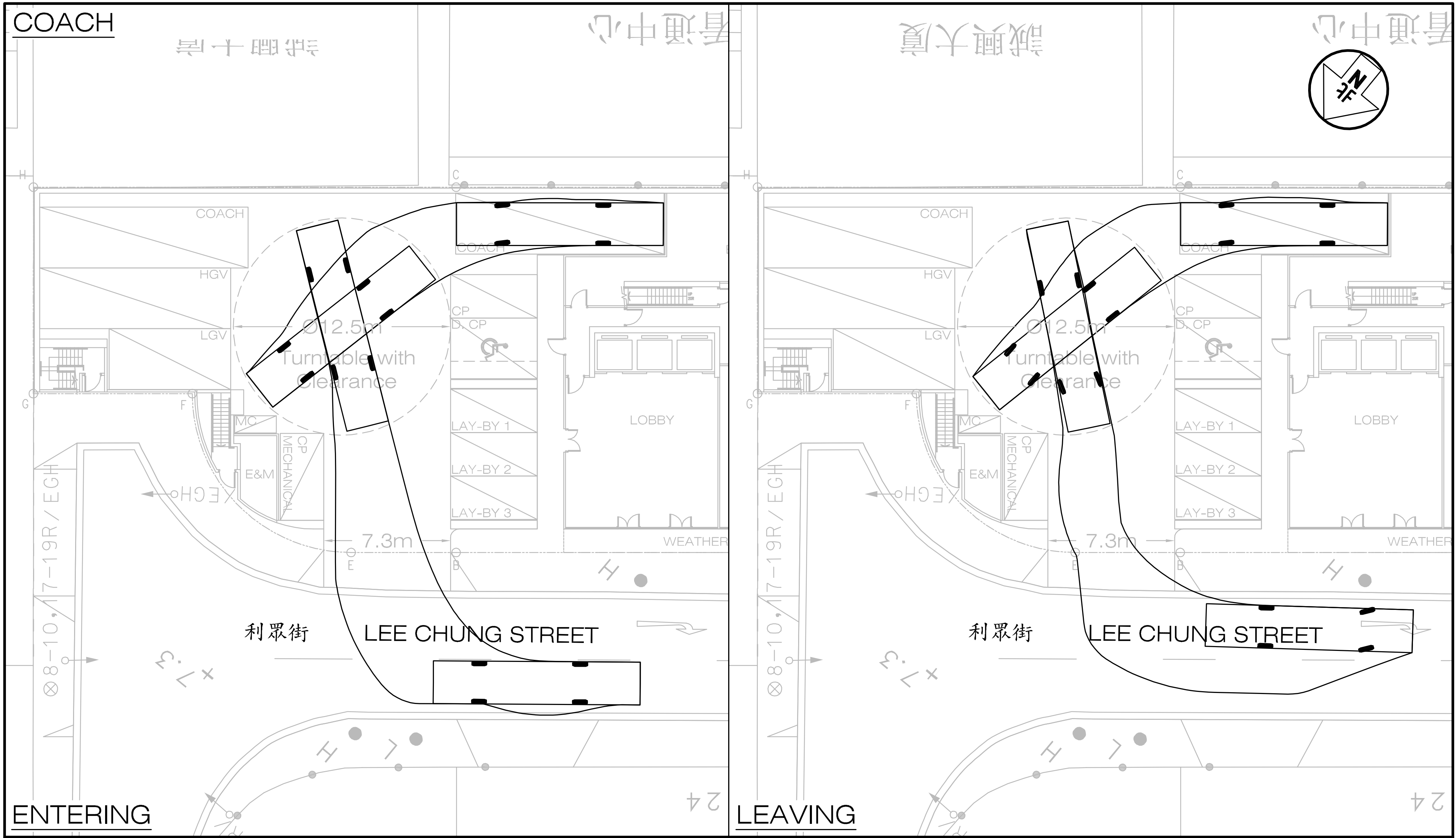
COACH
COACH
HGV
LGV
COACH
CP
D. CP
Ø12.5m
Turntable with Clearance
MC
E&M
CP MECHANICAL
LAY-BY 1
LAY-BY 2
LAY-BY 3
LOBBY
WEATHER
7.3m
利眾街
LEE CHUNG STREET
ENTERING
LEAVING
N

| | |
|---|---|
| Project Title | SECTION 16 PLANNING APPLICATION IN SUPPORT OF PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12 AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG J7408 |
| Figure Title | SWEPT PATH OF COACH<br>ENTERING & LEAVING THE SINGLE DECK TOUR BUS LAYBY |

| Figure No. | | Revision |
|---|---|---|
| SP5 | | C |
| Designed by | Drawn by | Checked by |
| L K W | S C Y | K C |
| Scale in A4 | Date | |
| 1 : 300 | 21 NOV 2025 | |

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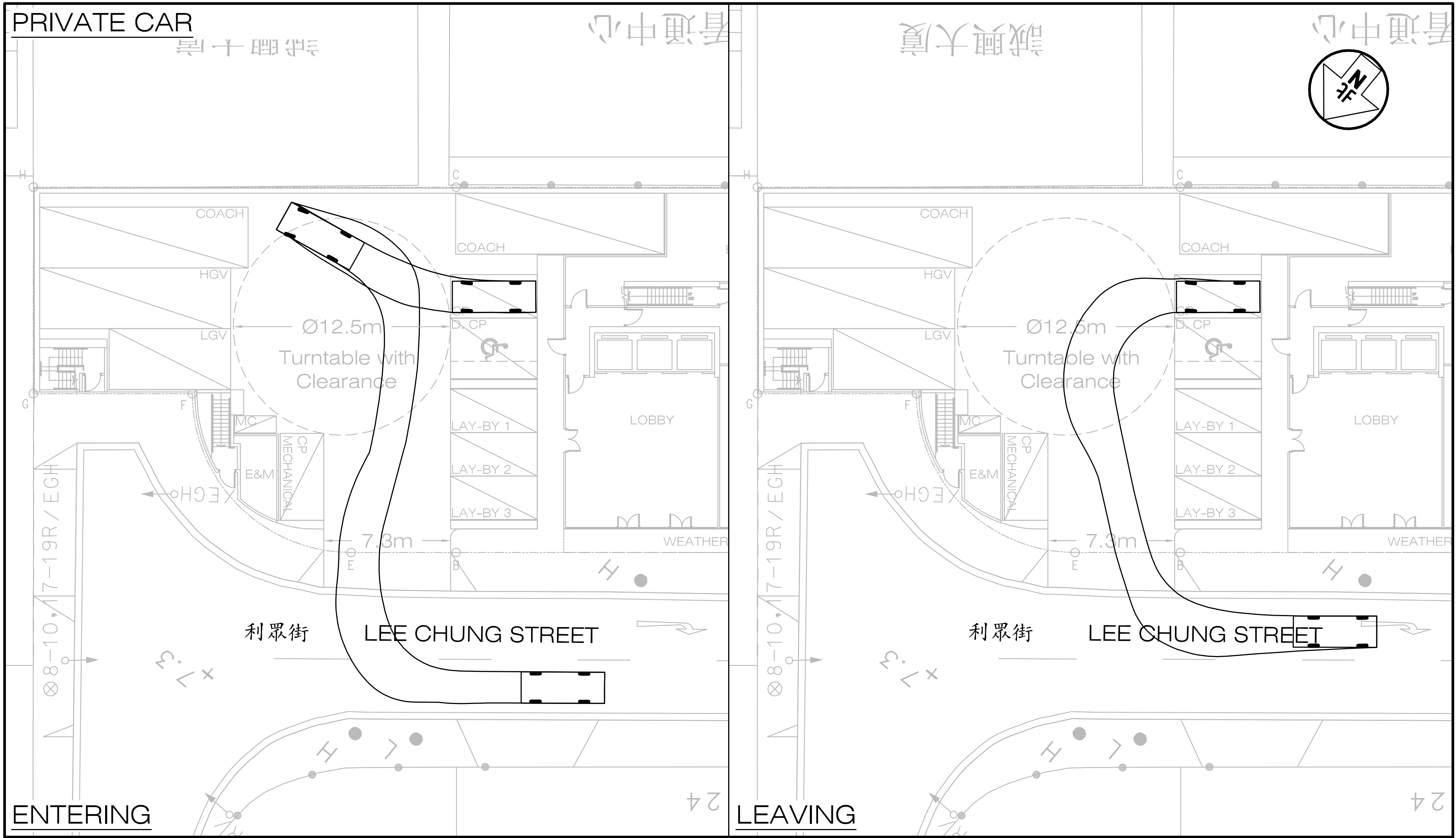
PRIVATE CAR
ENTERING
LEAVING
COACH
HGV
LGV
Ø12.5m
Turntable with Clearance
D. CP
LAY-BY 1
LAY-BY 2
LAY-BY 3
LOBBY
WEATHER
MC
E&M
CP MECHANICAL
7.3m
利眾街
LEE CHUNG STREET
8-10, 17-19R / EGH
H
C
G
F
E
B
N

| | | |
|---|---|---|
| Project Title | SECTION 16 PLANNING APPLICATION IN SUPPORT OF PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12 AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG | J7408 |
| Figure Title | SWEPT PATH OF PRIVATE CAR<br>ENTERING & LEAVING THE CAR PARKING SPACE | |

| Figure No. | | Revision |
|---|---|---|
| SP6 | | C |
| Designed by | Drawn by | Checked by |
| L K W | S C Y | K C |
| Scale in A4 | Date | |
| 1 : 300 | 21 NOV 2025 | |

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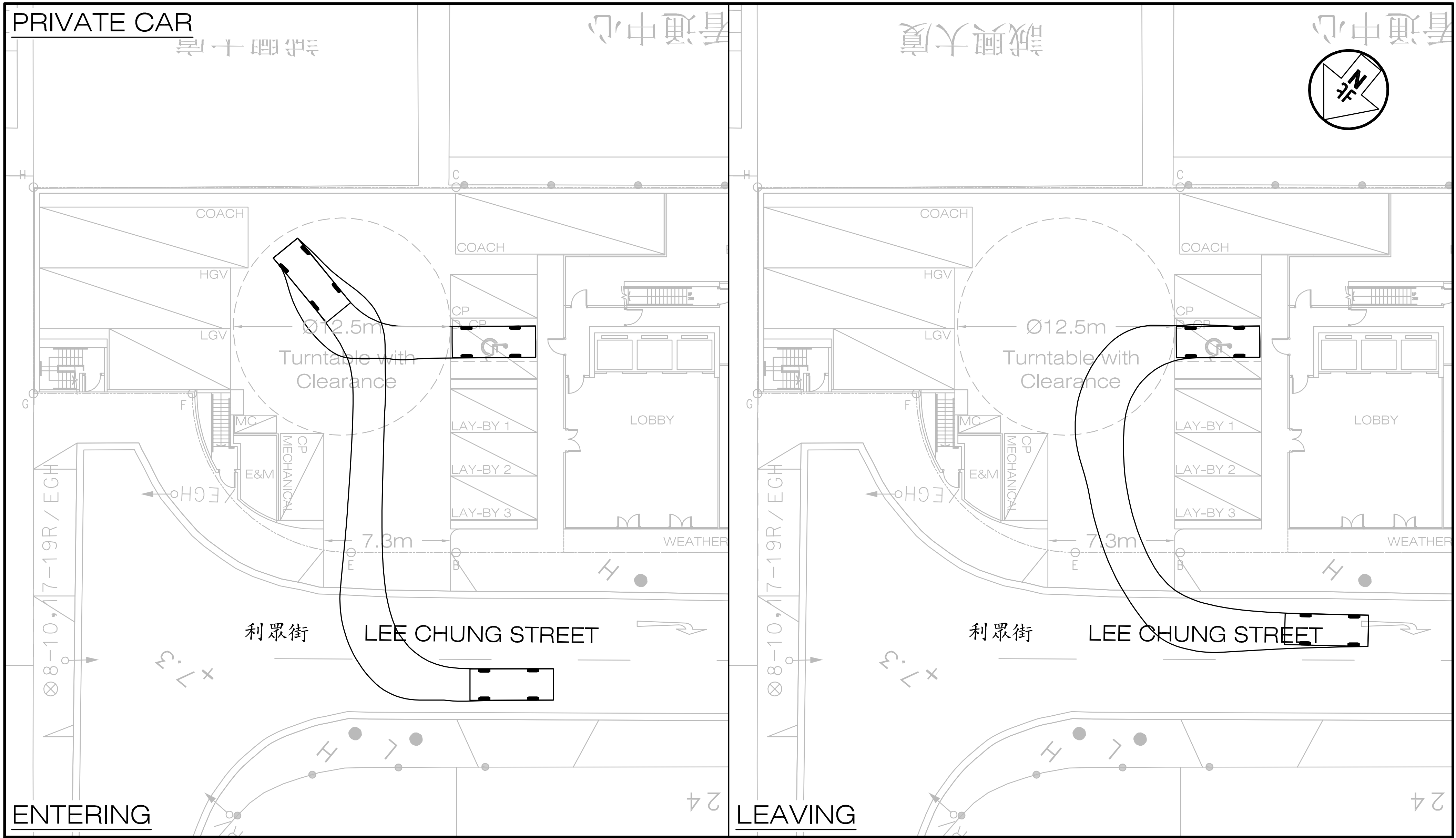
PRIVATE CAR
ENTERING
LEAVING
COACH
COACH
HGV
LGV
CP
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Ø12.5m
Turntable with
Clearance
MC
E&M
CP MECHANICAL
LAY-BY 1
LAY-BY 2
LAY-BY 3
LOBBY
WEATHER
7.3m
利眾街
LEE CHUNG STREET
8-10, 17-19R / EGH
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Project Title

SECTION 16 PLANNING APPLICATION IN SUPPORT OF PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12 AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG

J7408

Figure Title

SWEPT PATH OF PRIVATE CAR
ENTERING & LEAVING THE ACCESSIBLE CAR PARKING SPACE

| Figure No. | | Revision |
|---|---|---|
| SP7 | | C |

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| 1 : 300 | 21 NOV 2025 |

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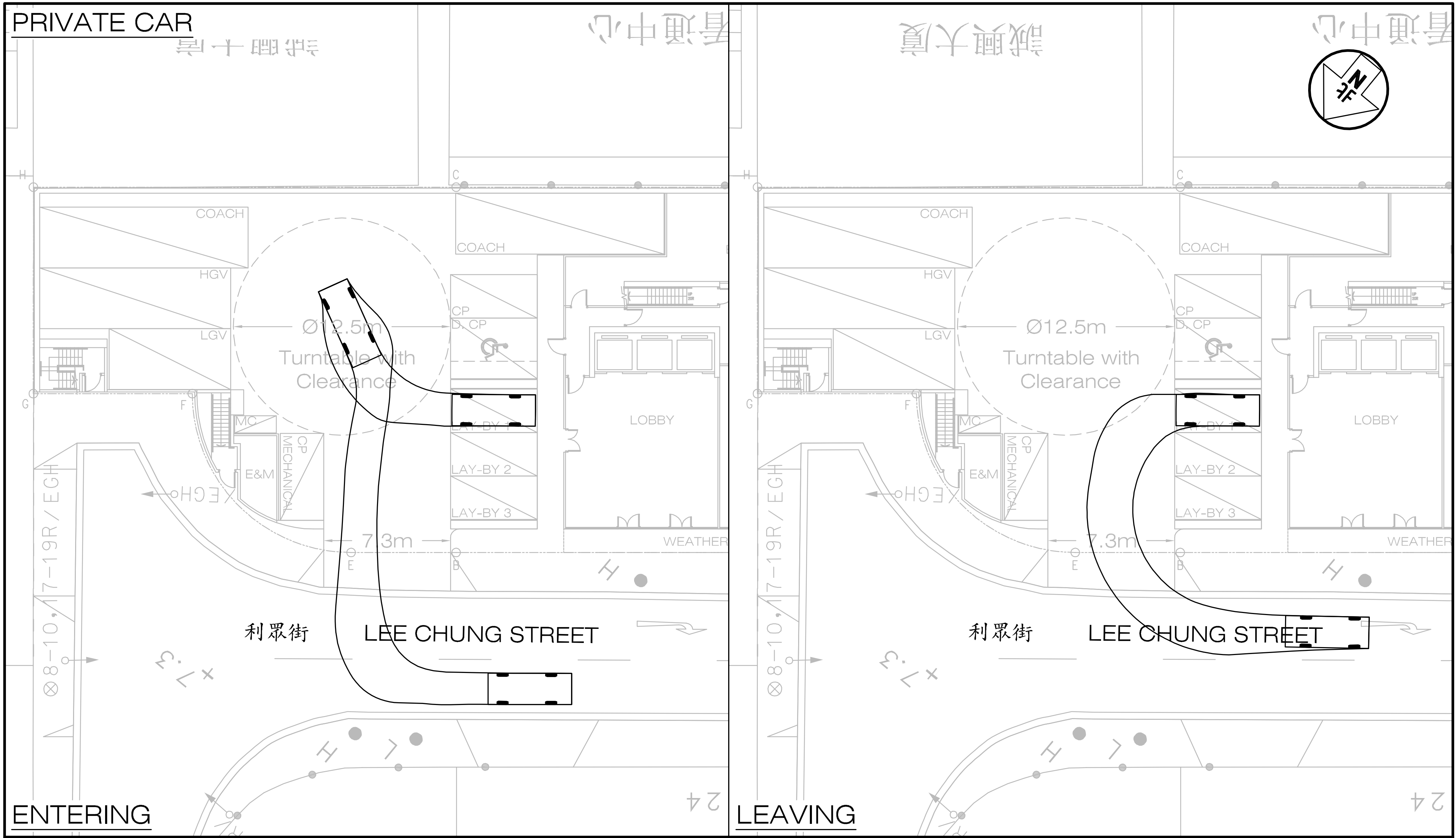
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Project Title

SECTION 16 PLANNING APPLICATION IN SUPPORT OF PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12 AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG

J7408

Figure Title

## SWEPT PATH OF PRIVATE CAR
## ENTERING & LEAVING THE TAXI AND PRIVATE CAR LAYBY

| Figure No. | Revision |
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| SP8 | C |

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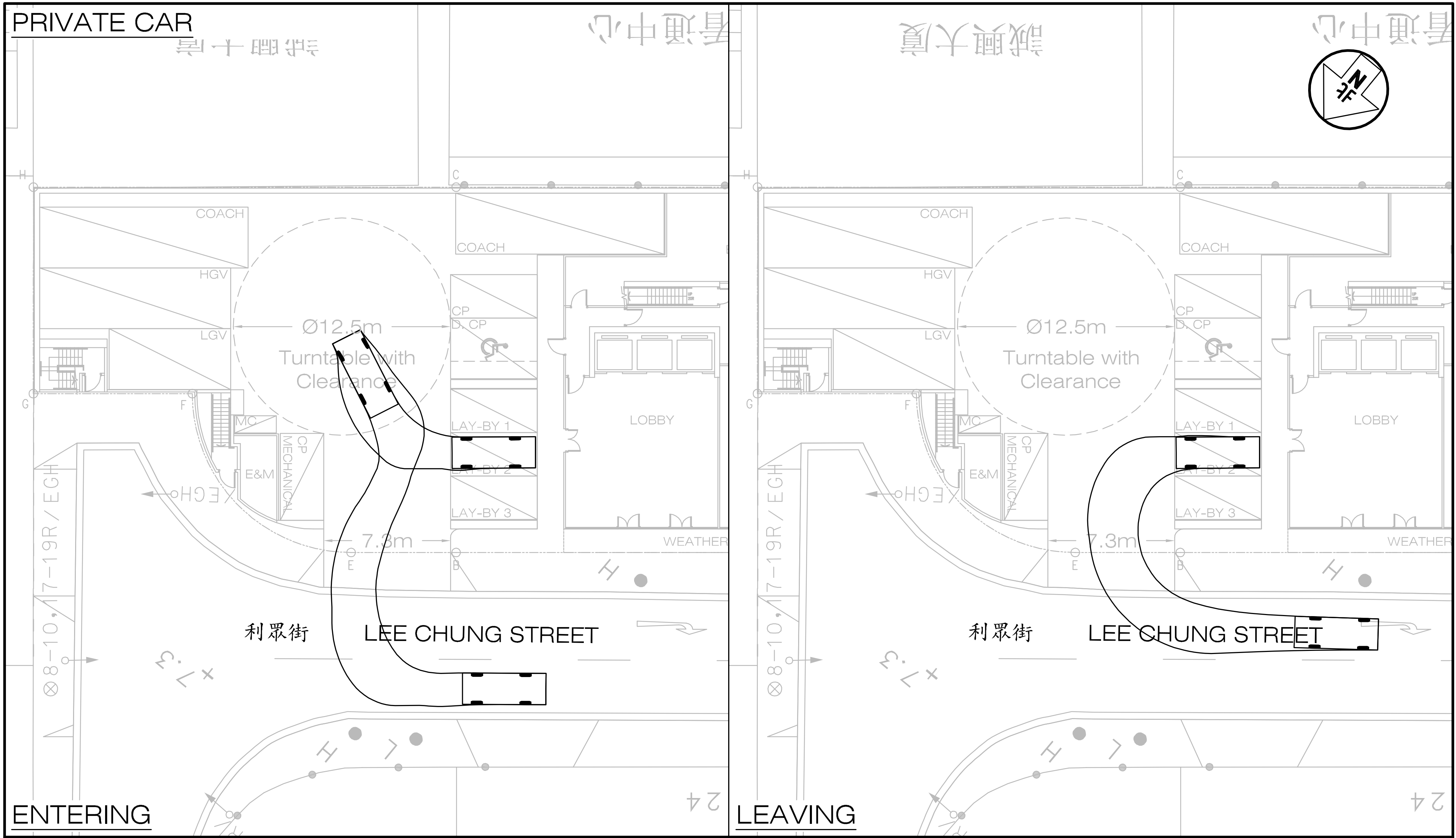
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| Project Title<br>SECTION 16 PLANNING APPLICATION IN SUPPORT OF PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12 AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG<br>J7408 | Figure No.<br>SP9 | Revision<br>C | **CKM Asia Limited**<br>Traffic and Transportation Planning Consultants |
| Figure Title<br>SWEPT PATH OF PRIVATE CAR<br>ENTERING & LEAVING THE TAXI AND PRIVATE CAR LAYBY | Designed by LKW<br>Drawn by SCY<br>Checked by KC<br>Scale in A4 1 : 300<br>Date 21 NOV 2025 | | 21st Floor, Methodist House, 36 Hennessy Road,<br>Wan Chai, Hong Kong<br>Tel : (852) 2520 5990 Fax : (852) 2528 6343<br>Email : mail@ckmasia.com.hk |

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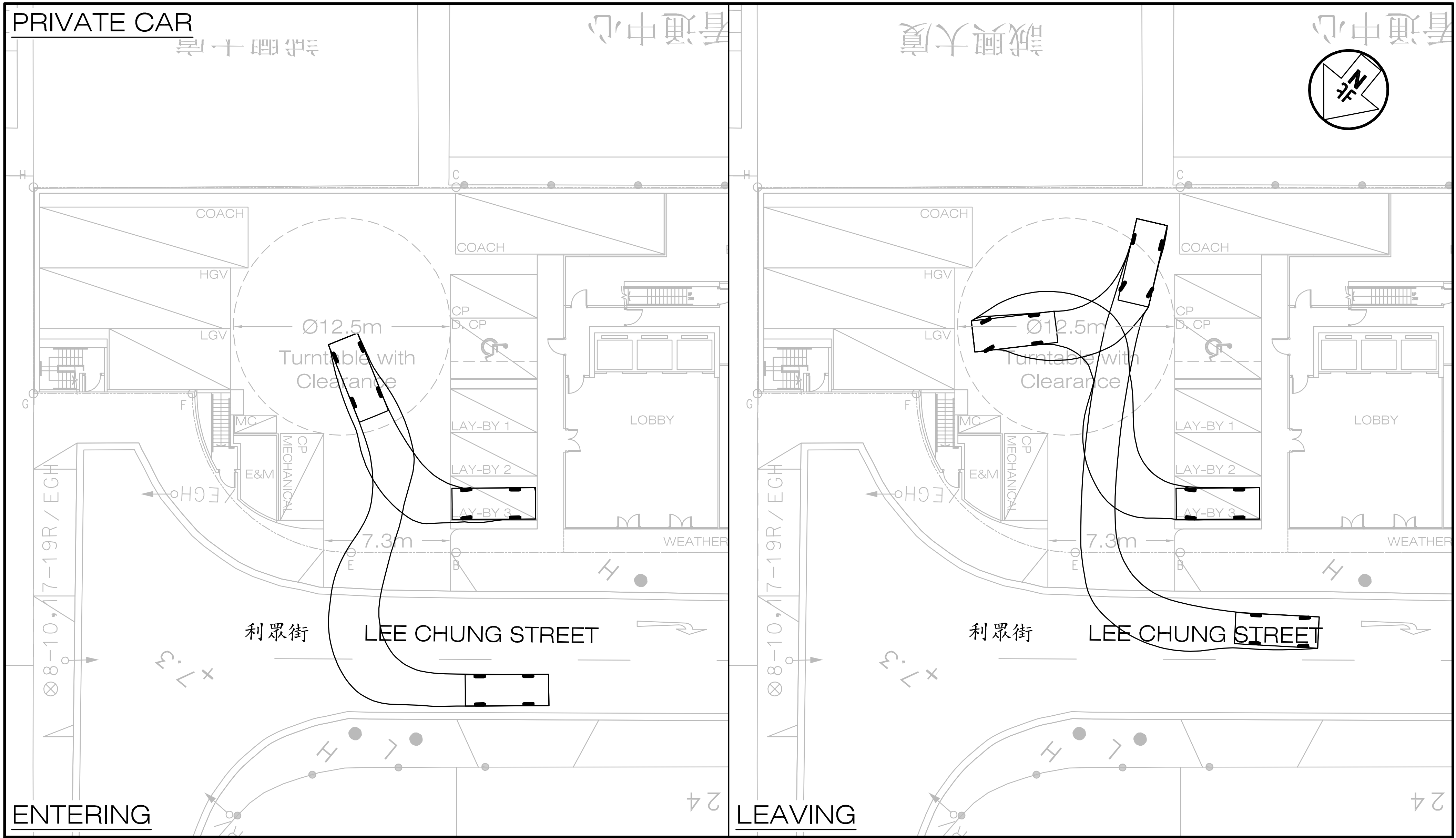
PRIVATE CAR
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LAY-BY 3
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CP MECHANICAL
7.3m
WEATHER
利眾街
LEE CHUNG STREET
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Project Title

SECTION 16 PLANNING APPLICATION IN SUPPORT OF PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR PROPOSED HOTEL USE AT CHAI WAN INLAND LOTS 12 AND 43, 14 – 16 LEE CHUNG STREET, CHAI WAN, HONG KONG

J7408

Figure Title

SWEPT PATH OF PRIVATE CAR
ENTERING & LEAVING THE TAXI AND PRIVATE CAR LAYBY

| Figure No. | Revision |
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| SP10 | C |

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# Attachment B2

## Operation Instructions of Proposed Double-deck Parking Rack

# OPERATION INSTRUCTIONS

## Car Parking Procedure :

- All passengers leave the car. Drive the car slowly until car wheels reach stop bar. Ensure hand brake is engaged according to manufacturer’s instructions.
- Check safety lever is in “up” position for lifting operation.
- Insert key into control panel E-stop switch. Check there are no people, animals or objects in the parking platform and/or in the effective area of the unit.
- Turn the key to switch on the system with Running indicator red lamp light up.
- Turn selector switch to right and keep it in position until the platform reaches its highest level, then turn to the left to lower platform onto safety hook.
- Check mechanical safety hook has engaged fully.
- Press the E-stop switch then remove the key from the control panel.

## Car Collection Procedure

The procedure to lower the car that is parked in the upper platform is as follows:-

- Insert key into control panel E-stop switch. Check there are no people, animals or objects in the parking platform and/or in the effective area of the unit.
- Turn the key to switch on the system with Running indicator red lamp light up.
- Turn selector switch to the right to raise the platform;
- Ensure safety lever is in correct position for lowering. (The safety lever, which is located at the edge of the front of the platform, is simply pulled manually to the correct position)
- Release safety hook by manually turn the Safety Lever to “down” position;
- Turn selector switch to the left until to lower platform.
- Press the E-stop switch and the key must be kept safely.